

college AND UNIVERSITY **business**

APRIL 1959

Managing Men, Materials and Money

Food Service Efficiency Through Remodeling

Inventory Methods for Bookstore Management

Intern Training for Business Managers

Fraternity Fires



LIBRARY, UNIVERSITY OF MICHIGAN, ANN ARBOR (page 38)



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green and the patterned walls are of white cement with small white marble aggregates. Private offices line the north wall and executive offices are in the penthouse. Here the walls are similar to those in the lobby while the curved roof of thin-shell concrete demonstrates another use of the company's versatile product. Accounting, mailing and other facilities are in a one-story wing and the entire project is air conditioned. Installed in all washrooms on all floors are SLOAN *Flush VALVES*, most favored of all.

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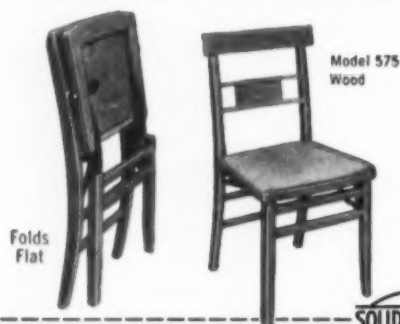
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APRIL 1959

Educational Television and the Ford Foundation	27
HENRY T. HEALD	
Managing Men, Materials and Money	29
PAUL K. NANCE	
TV-Radio Center for Students and Local Citizens	31
ROYAL D. COLLE	
Intern Training for Our Business Managers	34
C. E. PROTHRO Jr.	
Those Fraternity Fires	35
JOHN MORRIS	
Michigan's Library for Undergraduates	38
SOL KING	
Integrated Living Newest Trend in Dormitory Planning	42
M. E. SIEBERT	
Those Struggling Development Specialists	43
THOMAS A. GONSER	
Campus Photography	45
C. WILLIAM HORRELL and ROBERT A. STEPPES	
Bookstore Inventory Management	49
MERRILL EWING	
Auditors Aid Administration Through Fraud Disclosure, Part 3	51
A. E. MARIEN	
Legislation May Require Revision of Retirement Program	52
T. E. BLACKWELL	
Food Service Efficiency Through Remodeling	53
DOUGLAS OSTERHELD	
Organize Student Workers Before They Disorganize You	60
CLINTON A. WALL	
Questions and Answers	4
Looking Forward	28
News of the Month	66
Names in the News	84
Directory of Associations	88
Classified Advertising	90
What's New	95
Index of Advertisers	115

Published monthly by The Modern Hospital Publishing Company, Inc. (Subsidiary of F. W. Dodge Corporation), 919 North Michigan, Chicago 11, Ill., U.S.A. Howard Barringer, president; Robert F. Marshall, executive vice president; Robert M. Cunningham Jr., vice president and editorial director; H. Judd Payne, vice president; J. W. Cannon Jr., assistant vice president; Stanley R. Clague, secretary; John P. McDermott, treasurer. © 1959 by The Modern Hospital Publishing Company, Inc. Single copies, \$1. Accepted as controlled circulation publication at Mendota, Illinois. Published on the first of the month of the date of issue. Change of address should be sent 30 days in advance of publication date. . . . Change of address notices and undeliverable copies should be sent to: COLLEGE AND UNIVERSITY BUSINESS 919 N. Michigan Ave., Chicago 11, Ill.

AMONG THE AUTHORS: Paul K. Nance, financial vice president of Oklahoma Baptist University, Shawnee, presents in this issue his concepts of college organizational structure in regard to managing men, materials and money. He has been a member of the administrative staff at the university since 1943. In addition to his college duties, he occasionally preaches in Baptist churches on a supply basis . . . C. E. Prothro Jr., resident auditor of Tuskegee Institute, Alabama, reports on the operation of the program of intern training for college business managers being carried on at his institution. He has been a frequent student at the college business management workshop conducted annually at the University of Omaha . . . Merrill Ewing, controller of The American University, Washington, D.C., suggests the proper techniques to be followed in setting up a bookstore inventory control system — applicable either to a college owned store or a privately owned store. Prior to accepting his present appointment in 1954, he had been assistant business manager of Simpson College, Indianola, Iowa.



QUESTIONS AND ANSWERS

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Public Relations

Question: In what sense can the college business manager be considered as having public relations responsibilities at his institution? — D.L., Minn.

ANSWER: A college business manager has many publics, and he best serves his institution by conscientious attention to relations with each separate public.

Townpeople and suppliers often have little contact with the institution except through agencies of the business office. If the business manager is insensitive to the need for good public relations, he will seriously injure the reputation and acceptance that his institution must have to be strong. Students' contacts with the business office often are painful for them, since such contacts usually result in separating the students from some of their money. A pleasant atmosphere, rather than one of brusque authority, can do much to improve the attitude and enthusiasm of these future alumni.

Perhaps an even more important public is the faculty. Even under the best of conditions, college business officers may be accused of thriving on red tape. No faculty or staff member will perform his best service for the institution if he believes that procedures are unreasonable or inflexible or are designed primarily for the convenience of the business office rather than to further education. Unquestionably, it is a prime responsibility of the business manager to keep "educating" faculty members regarding the fiscal facts of life, and the true reasons for procedural requirements.

Finally, we must not forget that good public relations consists of following the best business practices. A decision based on expediency that is unfair to anyone, no matter how remote, invariably results in deterioration of public relations.

In summary, then, a business manager has important public relations re-

sponsibilities in many areas. His personal and professional attitudes are major factors in the public relations of his institution, and they will be reflected in the attitudes exhibited by all of the business staff. If it is felt that cooperation is lacking in certain areas, the business manager should take this as a symptom of the need for review and reshaping of his own public relations attitudes and actions. — BRUCE J. PARTRIDGE, *business administrator, University of Delaware.*

Fund Raising

Question: What should the business manager's responsibilities be in connection with the fund raising efforts of his college or university? — N.R., Ill.

ANSWER: The business officers of some small colleges are instrumental in development, particularly when they are able to delegate their business functions to subordinates. Some of these may seem to be natural born public relations experts and fund raisers, especially when the public recognizes their dedication to the college.

In larger colleges and universities the business and fund raising functions usually must be separated, as Everett Hopkins of Washington University so wisely urges. However, even where fund raising is separately directed by a development officer, the business officer can be most helpful in numerous respects.

The business manager can advise a new development officer concerning useful parents and alumni, as well as business and commercial connections, and he can cultivate the publics of the college with whom he has contact. He can maintain financial records and procedures, and prepare financial reports to support the development effort. He can also assist financial development with administrative services, mailing, addressing, tabulating and printing procurement.

Most important, the business manager can back up the fund raiser by demonstrating to the public that he is making the most of the financial and physical resources that the institution already has the privilege of using. — GORDON P. FREESE, *vice president for finance and development, Stephens College, Columbia, Mo.*

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill.

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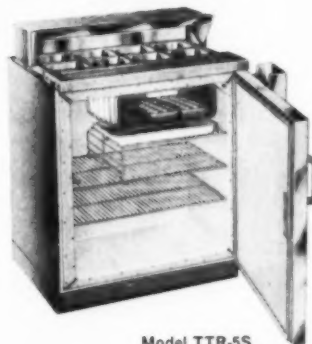
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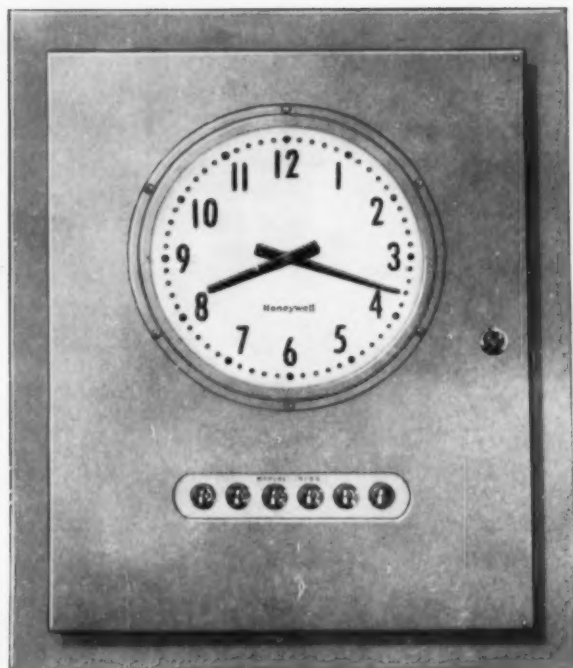
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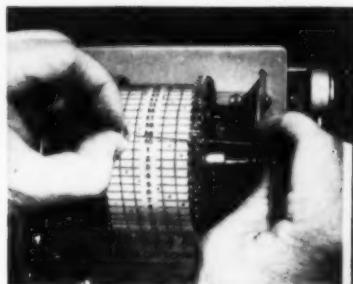
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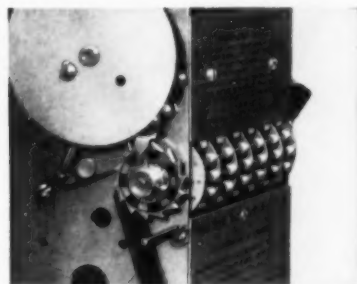
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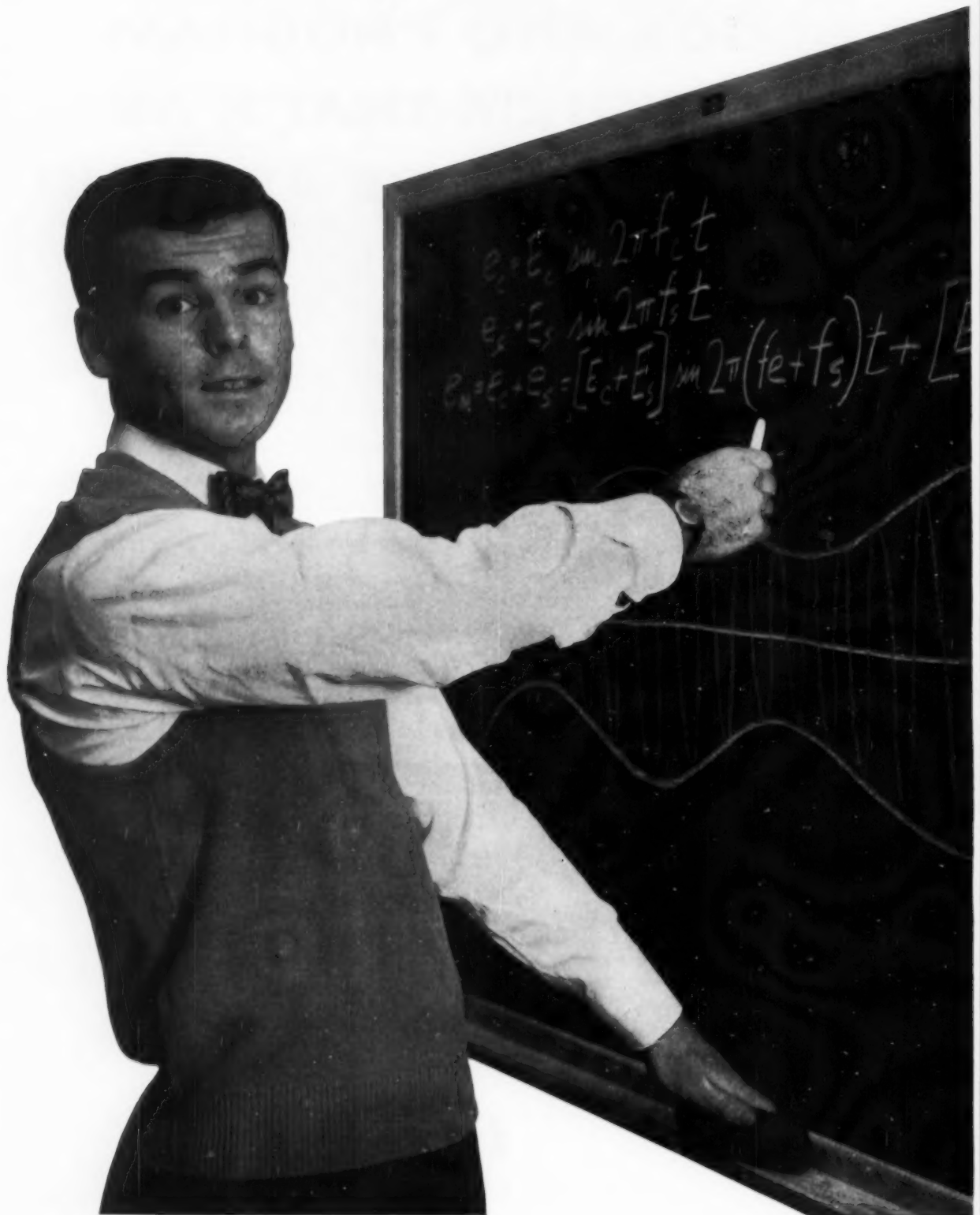
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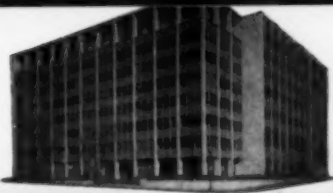
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Typical room arrangements with Dorm Line furniture



CONTRACT DEPARTMENT, Merchandise Mart, Chicago 54

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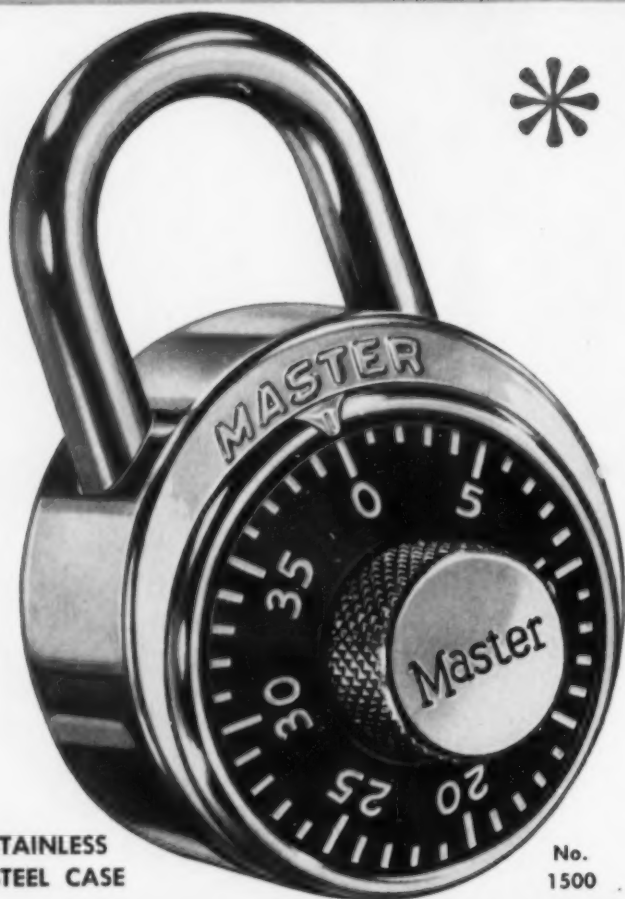
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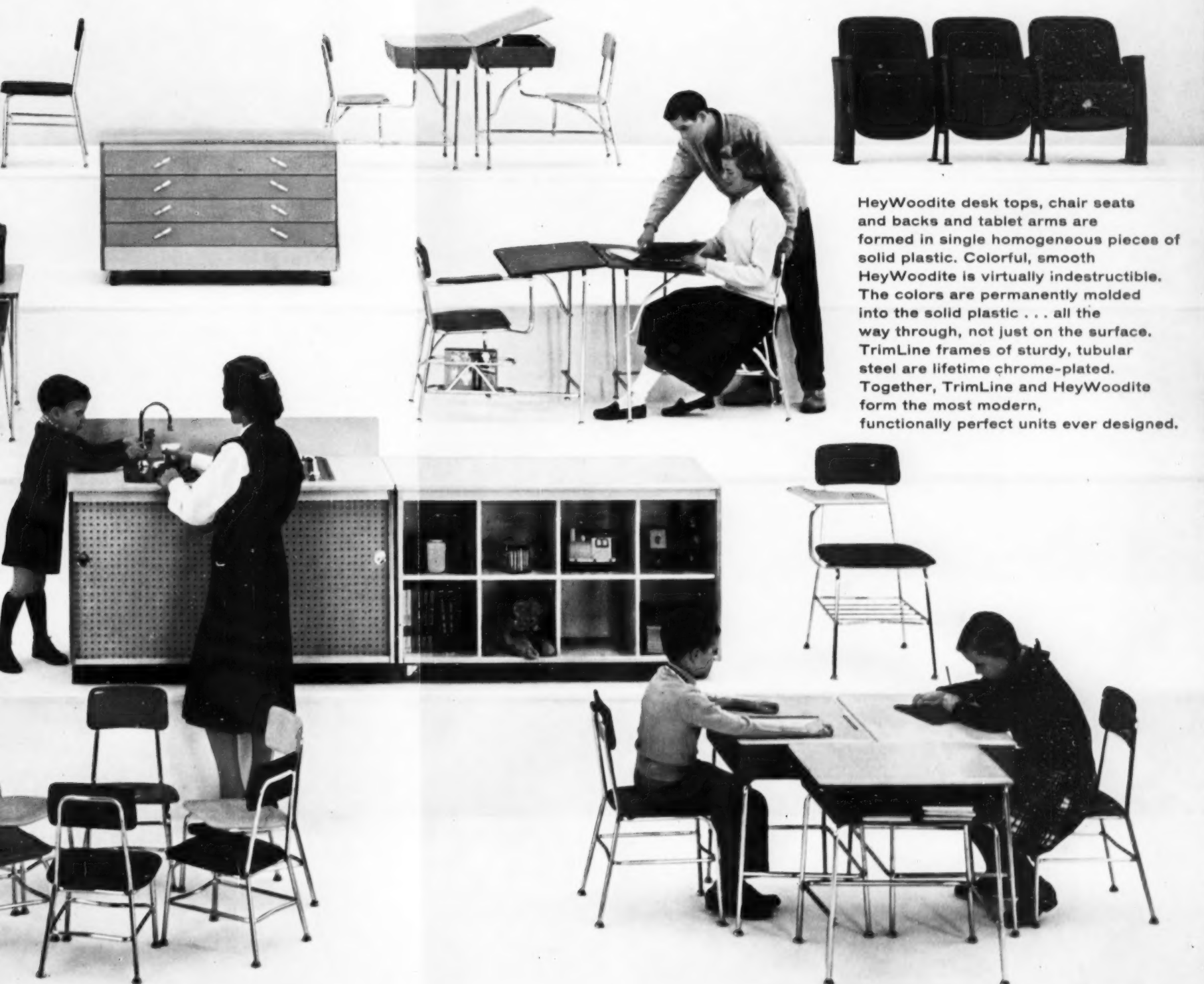




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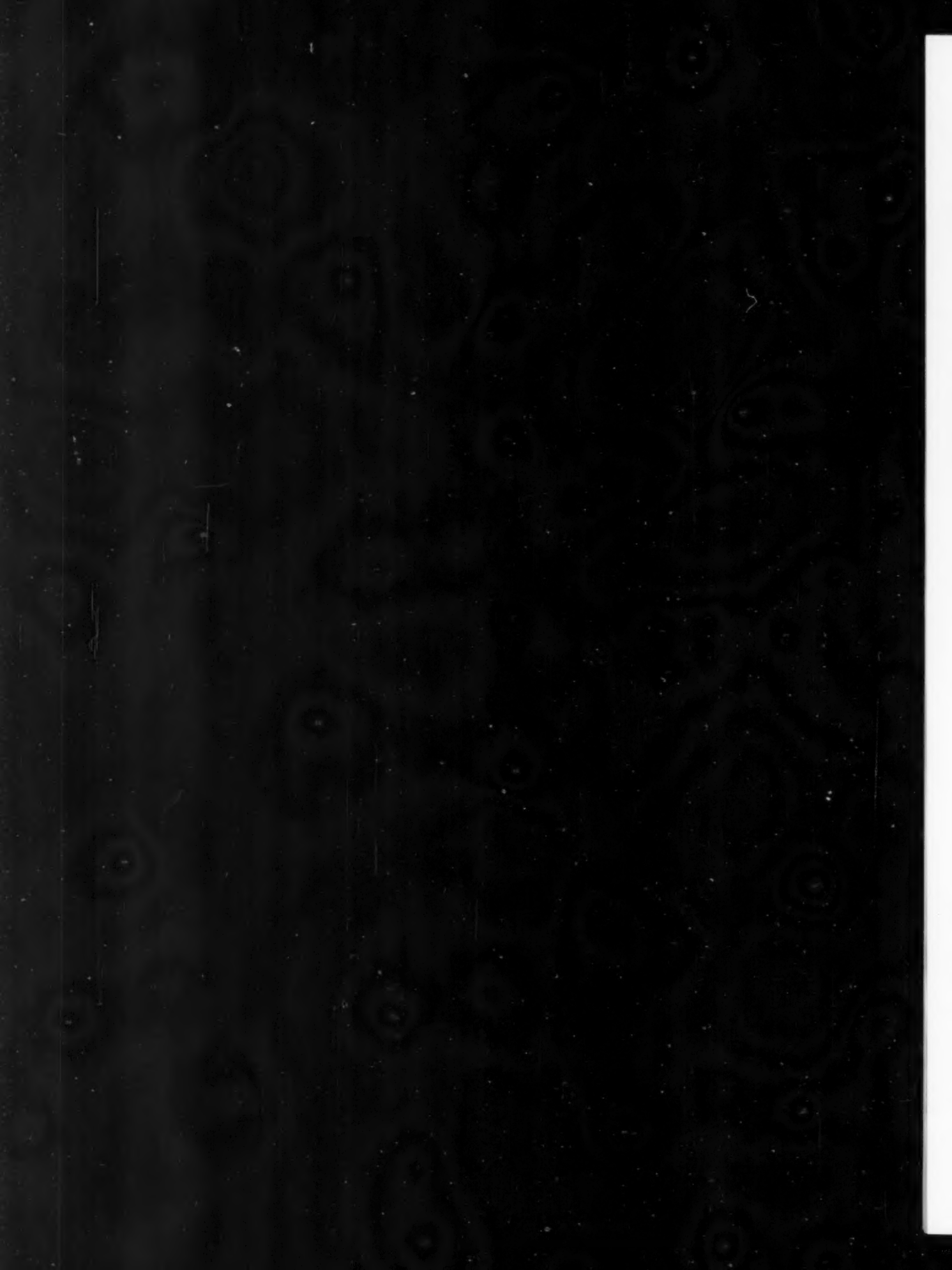


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DENSI-CORE PLASTIC desk tops, study tops and tablet arms are used throughout the Newport line. Another Heywood-Wakefield development, Densi-Core is a new pressure-molded material of exceptional strength and durability.







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Even a newly trained operator can race through revenue accounting, budgetary accounting, check writing, payroll, student activity accounting. She can switch from job to job at the flick of a knob.

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Soft light from interior through solar-selecting panels enhances beauty of building at night.

Daylight-controlling prefabricated THINLITE Curtain Wall provides ideal vision and ventilation, yet requires minimum maintenance.

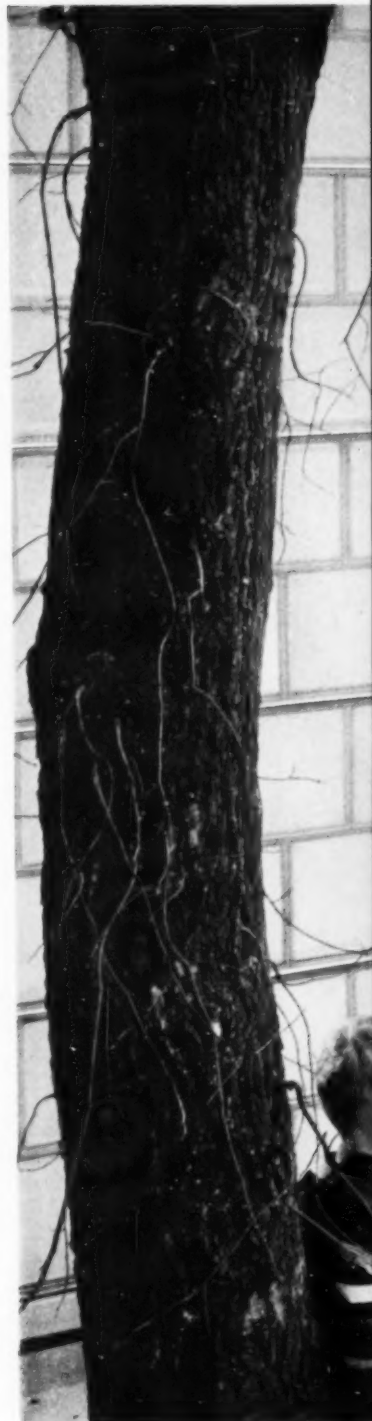
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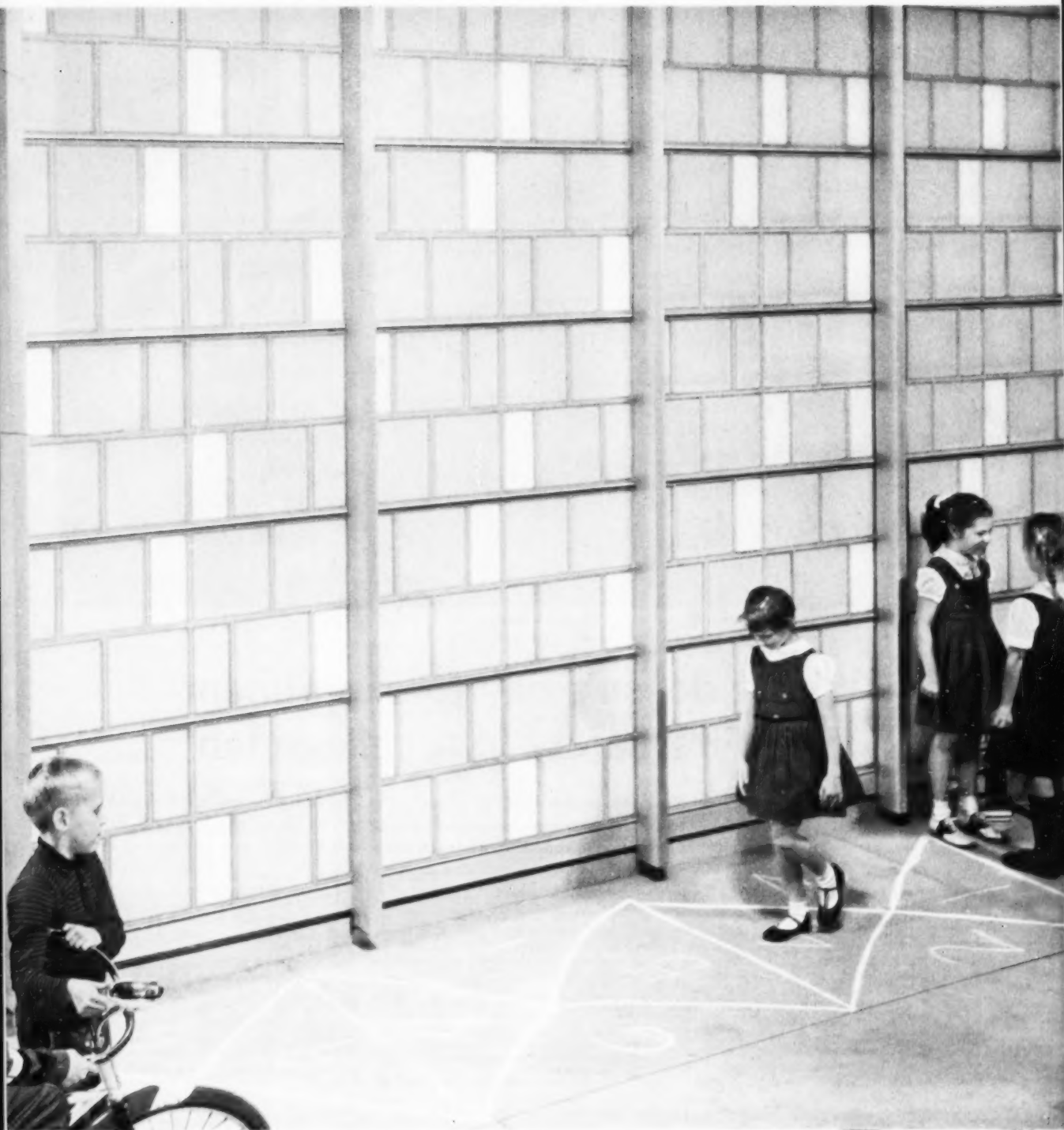
*Daylight control inside—
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THINLITE Curtain Wall offers a new dimension in school design...yet provides built-in daylight control. Available in four standard panel styles and a variety of colors. Custom styles to specifications.



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This unsprinklered building, housing two laboratories, was completely destroyed by fire. Spontaneous combustion was the suspected cause. Loss was put at \$1,000,000.

Why it doesn't pay to experiment with Fire Safety in a college lab

The total number of school fires each year approaches 5000, or almost 13 a day. Among the most frequent places of origin are storage rooms and unused areas; classrooms; auditorium and stage; furnace rooms and laboratories. They start most often through faulty electrical wiring; heating and cooking equipment; smoking and matches; spontaneous combustion.

YOUR SCHOOL CAN BE PROTECTED AGAINST FIRE. Grinnell Automatic Sprinklers stand ready to stop fire — and its threat to life and property — any time, any place. According to records maintained by the National Fire Protection Association (a non-profit, educational organization) there has never been a loss-of-life fire in a school building completely protected by automatic sprinklers.

TYPICAL CASE HISTORIES. MAY 25, 1956 — Children playing with matches started a

fire in the Roosevelt High School in Utica, New York. The flames, which spread across joists and sub-flooring, were extinguished by automatic sprinklers.

DECEMBER 6, 1956 — In a large grammar school . . . when the latch on a boiler door failed to hold, hot gases from the flames caused a sprinkler to go into action before any combustible material was ignited.

THE COST OF FIRE VERSUS THE COST OF SPRINKLER PROTECTION. It has been esti-

imated that the cost of installing automatic sprinklers averages between 2% and 4% of the cost of a building. But building construction costs have doubled since 1947. So it is possible to provide complete sprinkler protection for most buildings today for only a fraction of their replacement costs. Moreover, insurance premium reductions are immediate, which helps to pay for the installation.

GET A FREE ESTIMATE. Backed up by over 85 years experience in engineering, manufacturing and installing fire protection systems, our representative can offer you valuable assistance. For example, he will gladly estimate the cost of installing sprinklers in your school. There's no obligation. Get the facts today. Grinnell Company, Providence 1, Rhode Island.



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Educational Television and the Ford Foundation

HENRY T. HEALD

President, the Ford Foundation



THE Ford Foundation's interest and activity in educational television is as old and as broad as the field itself. During the last seven years, the Foundation has granted directly or indirectly more than \$30 million for the support of educational television. A little less than half of this sum has been granted by the Foundation itself; a little more than half has been given by the Fund for Adult Education, and Fund for the Advancement of Education, two independent organizations established by the Foundation in 1951. This money has gone primarily to back in-school experiments, to help community stations get started, and to assist the national clearinghouse, the Educational Television and Radio Center.

One of the purposes of philanthropy is to take chances in the public interest that others are not in a position to take. We are taking our chances on educational television.

We are interested in its development for in-school instruction through closed-circuit television. We are interested in the continued growth and development of open-circuit television as a resource for both adult and in-school education on a city-by-city basis. Finally, we are interested in helping to stimulate the production and exchange of quality programs through both the Educational Radio and Television Center and through the efforts of the local stations themselves.

We are convinced, however, that the usefulness of educational television depends directly upon the commitment each community is willing to make to the enrichment of its civic, cultural and intellectual life.

The Ford Foundation has recognized the need in educational television for orderly progress, for careful development, and for experimentation. Many questions are still to be answered. What subjects are most appropriate for television instruction? What are the most effective procedures for various age levels? What special facilities and training are required? What costs or economies might be expected?

To provide data bearing on these and other related questions, the Fund for the Advancement of Education inaugurated in 1957 a National Program in the Use of Television in the Public Schools. About \$1 million has

been provided recently by the Ford Foundation itself to help continue the National Program for another year. Grants are being made to school boards, state school systems, and regional councils representing some 450 participating schools throughout the country.

The results of in-school television are promising. Educational television has made its mark not alone through in-school programming but also through a growing acceptance in the community. The educational television station is emerging as a partner of the library, the college, the museum, and the church as a modern community institution. Its task is to be informative and inspirational as well as educational. Its potential is as great for adult education as it is for child education. This new medium has the capacity to stimulate all men's minds and impart a new lift to people of all ages.

Even more enduring is educational television's potentiality as an instrument for improving the general intellectual climate of American society. The line between formal schooling and life-long education has been drawn too firmly. School and college years are just a fraction of the average lifetime. Yet they are too often regarded as the symbol and substance of the educated man. With them, one is "educated"; without them, one is not.

Ideally, educational television should serve as an intellectual irritant to complacent degree-holders. It should also act as a stimulant to those whose formal education is incomplete. It should challenge the imagination and excite the curiosity of both groups. In short, it can start, or keep, people thinking and learning. This, it seems to me, is one way to fix the attention of society on educational values permanently, not by emphasizing their usefulness as a national resource in times of crisis, but by having growing numbers of people engaged in some form of intellectual activity as a matter of course.

National organizations, such as the Ford Foundation, have helped communities get educational television under way. They are continuing their assistance to improve and extend its programs and services. But the only elements that can make the educational TV station a permanent and powerful institution are the initiative, conviction and support of the community itself.

LOOKING FORWARD

A National Office?

EVER since the formation of the National Federation of College and University Business Officer Associations eight years ago, there has been a feeling that eventually steps would need to be taken to strengthen its structure in order to make it more effective.

This year, under the leadership of Federation President Charles O. Emmerich of Emory University (Southern Association), a special committee of the Federation was appointed to study the feasibility of a national office and the appointment of an executive secretary. The proposal of this committee will be placed before members of each association within the Federation for action at its annual meeting. Each association will then instruct its representatives on the Federation board of directors to vote in accord with the decisions reached at its annual convention or by other appropriate poll of its membership. At the first meeting of the Federation board following the meetings of all member associations, the proposal will be considered for implementation.

Included in the proposal are plans for the establishment of a national office to be situated in Washington, the appointment of an experienced college business administrator to the post of executive secretary, and a dues schedule to the Federation based on the annual budget expenditures of the individual institutions. Colleges with yearly budget expenditures of \$500,000 would pay dues of \$10; institutions with budget expenditures in excess of \$20 million would pay \$300 in dues. Between that spread of assessments would be five gradations of dues payments, depending on budget size.

The Federation has attempted to operate too long on a volunteer basis with time donated by personnel on various committees and with the expenses in large measure borne by the institutions the committee personnel represent. For business officers to operate in such unbusinesslike fashion is a contradiction. The new proposal for Federation service and leadership will be more properly financed, it is hoped.

More strenuous efforts must be made to get grass-roots support for the Federation from individual business officers and the institutions they represent. The Federation must represent all college and university business officers; too many have felt that the efforts to untangle sponsored research problems with the government has dominated the energies of the Federation. The executive from the small college does not see where he fits into that picture. True, he got help from the 60 College Study, and is able to get additional help at a modest fee from the National Federa-

tion Consulting Service, but he still merits more attention being paid to his other real needs.

These attempts to move forward in the improvement of services for the individual business officer seem to be agonizingly slow. The positive efforts now being made to strengthen the program and service of the Federation are a portent of better things to come.

Honest Differences

THE American Council on Education has rendered higher education a service with publication of a pamphlet titled "The Need To Close Ranks in Higher Education." This statement of the council's problems and policies committee points up the rift that seems to be developing between public and private institutions.

As emphasized in the statement: "Rivalry among institutions, and between groups of institutions, is healthy when conducted in an atmosphere of mutual respect. But generalizations which attribute qualitative characteristics to institutions simply because they are public or private go beyond the facts."

Continuing in similar vein, the committee points out that "the nature of the differences among kinds of institutions can be and has been misrepresented. For example, it is simply not true to say that large institutions inevitably ignore the importance of the individual student, that small institutions necessarily represent quality, that private institutions are for the sons of the rich, that institutional expenditures for good education are any less in a public institution than in a private one, that one kind of American institution is 'socialistic,' the other not, or that nonchurch related institutions are unavoidably 'godless.'"

Such a statement has been long overdue. Healthy competition is one thing; dishonesty and misrepresentation between diverse groups in higher education is another, and is not to be countenanced. The interest of education is not properly served when segments of education indulge in damaging statements in regard to others who are just as zealously working toward providing the best of educational program for their constituencies.

Misstatements of fact can jeopardize public confidence in the objectives of higher education, public and private. If our colleges and universities are to receive adequate financial support in the future, the public must have confidence in their purposes and programs. Let not those in education itself be the ones to destroy public confidence through dishonest bickering.

COLLEGE administrators are faced constantly with problems of proper internal organization for adequate and effective operation. These problems involve such decisions as to whom should be assigned responsibilities for the many different functions. In order to establish a sound organizational arrangement, administrators must be aware of certain basic concepts. The following suggestions might be worthy of consideration.

Organization involves group behavior, and coordination of group behavior is more difficult than coordinating individual behavior. Also, it should be remembered that an organization must depend upon decision making in arriving at common objectives; and, at the same time, the organization takes from the individual some of his decision making autonomy.

Decision making is considered the heart of administration. Shuman¹ indicates that "in most institutions, an administrator places himself at an immediate disadvantage if he is lacking in the decisive quality which may embody a touch of brutality." The statement by Shuman is quite pertinent; however, no attempt is made in this study to interpret the statement, except to say that it is realistically true in college operation just as in any other organization.

Better To Know Facts

Occasionally there may be a tendency in colleges to by-pass issues in order to avoid making the essential, and sometimes unpleasant, decisions that affect them. It is far more frustrating to be left in doubt than to know the full facts, even though the facts may be distasteful. Most decisions are not too distasteful when properly presented. No administrator should make a decision that is knowingly arbitrary in its effect upon others unless the consequences of the several choices are relatively the same. If motives are right and the administrator exercises the best judgment possible,

¹Shuman, Ronald B.: *The Management of Men*. Norman: University of Oklahoma Press, 1948, p. 91.

²Wells, Harry L.: *Higher Education Is Serious Business*. New York: Harper and Brothers, 1953, p. 33.

Managing Men, Materials and Money

PAUL K. NANCE

Financial Vice President, Oklahoma Baptist University, Shawnee

sible, then he should make clear and unmistakable decisions.

Certain principles are basic in establishing an adequate organization designed for a satisfactory working arrangement. Wells² names four basic principles that he considers essential to the success of functional organization. These principles are briefly outlined as follows:

1. Clear-cut statement of responsibility covered by a given function.
2. Patient training to be sure that the individual sees clearly the obligation of his assignment and its relation to other units.
3. Ample discussion in conference so that the individual in charge of a defined area has a general picture of the whole college.
4. Sufficient correlating control to ensure that major moves and policies are in line with the over-all purpose of the enterprise.

A problem that confronts administrators is the amount of democracy that should be exercised in carrying out the college program. Even though most administrators agree that democratic procedures are more acceptable and satisfactory for the staff than the strictly autocratic issuance of directives from top administrators, it does require more time and patience to use the democratic processes of counseling with subordinates. A practical use of democratic procedures appears to have more advantages than disadvantages, as long as top administrators provide the necessary leadership to keep the program moving steadily toward the long-range objectives of the college.

As colleges have expanded services and as new administrators have been added to the staff, the span of control for the top administrator has increased. Usually it has been considered necessary to keep new administrative positions under close scrutiny. Therefore, these positions have been established directly under the control of the president.

Changing Patterns

Russell³ indicates there are changing patterns in the administration of higher education as follows:

"A sound theory of administration concerning span of control in a complex organization such as a modern university should have no more than eight and preferably as few as four major administrative officers reporting directly to the highest administrative authority, the president. . . . A rather definite organizational pattern has emerged, by which four major areas of administrative function are recognized. . . . The four areas are the academic program, student personnel services, business and financial management, and public relations. This results in an institutional administrative organization with four officers directly responsible to the president: (1) the academic vice president; (2) the director of student personnel services; (3) the vice president for business affairs, and (4) the director of public relations."

Not all colleges have made these changes in the organizational pattern.

³Russell, John Dale: *Changing Patterns of Administrative Organization in Higher Education*, *Annals of American Academy of Political and Social Sciences*, 301:26 (September) 1955.

For instance, the personnel functions may not be coordinated under one authority. However, colleges generally have come to realize the necessity of a well defined organizational structure. In all probability, considerable efficiency could result from the wider adoption of the organizational pattern suggested by Russell.

In theories of administration several principles are mentioned involving span of control, levels in the hierarchy of command, unity of command, and grouping workers according to related functions. Span of control refers to the number of subordinates that report directly to one superior. Organizations have several of these superiors, or supervisors, with each one placed on a particular management level.

Consider Case No. 1

As the number of subordinates that report directly to a superior decreases, a greater number of levels of command will be needed. For example, let us assume an organization has 250 employees in a non-supervisory capacity. In Case 1 let us further assume that one superior can direct the work of 25 nonsupervisory or 10 supervisory employees. By dividing the total number of non-supervisory employees by 25 we have 10 groups with 25 in each group; therefore, this requires 10 superiors at the first supervisory level for the 250 workers. Since one superior can direct the work of 10 supervisory subordinates, only one is needed at the second supervisory level. Including the nonsupervisory employees as one level, there are three levels in the Case 1 hierarchy of command.

In Case 2 let us assume that one superior can direct the work of only 10 nonsupervisory employees and five

supervisory employees, instead of 25 and 10, respectively, in Case 1. By the same method of calculation, there are four levels in the hierarchy of command as compared with three in Case 1.

What is the point of this discussion? It appears more practical to have a broader, flatter organizational structure in order to reduce the number of levels of command through which communications must pass, both upward and downward, in the chain of command. Much of the success of an organization depends upon the adequacy of communications.

Other Advantages

There are other advantages to a minimum number of levels of command: Fewer supervisors are required; supervisors will probably have better qualifications because their range of authority is greater; subordinates are given more of an opportunity to use their own initiative, and the organization is more democratic.

Of course, there is a limit to the extent an organization can be broadened and flattened, depending upon the homogeneity of the functions and the skills required to perform the functions. Further, the number of levels of command should not be reduced at the expense of violating the principle of span of control.

Now, what about unity of command? With strict unity of command subordinates report to only one immediate superior. Because of the complexity of function in most organizations, it may be impractical to follow strict unity of command, which is a line type of organization. This complexity of function implies that a group of related jobs may be so complicated that one superior cannot

adequately supervise the jobs; therefore, it becomes necessary for two or more line superiors, or one line supervisor with one or more staff members, to supervise the same group of related jobs.

Staff members frequently have functional authority, which is the right to supervise a specific function included in a group of functions performed by the worker. This second arrangement is referred to as a line and staff type of organization. Most college organizations are of the line and staff type.

Grouping the workers according to related functions appears to be a fairly practical arrangement; however, it is necessary to know which functions are related.

Administrators have many responsibilities, including the responsibility for creating an atmosphere that encourages desirable changes amid a rather orderly environment. New ideas and techniques must continually be integrated into the college operations.

Differs From Industry

The administrator in higher education has characteristics that set him apart from the typical manager in industry. The duties of college operations tend toward creativeness and research, rather than production. This encourages individualistic tendencies that are conducive to a rather loose organization.

The nature and objectives of operations establish the college administrator in a unique role. He must be concerned with the education of youth and the maintenance of the spirit of inquiry first; at the same time, he must be an efficient manager of men, materials and money. ■

Modernizing Campus Landmarks

... in order to meet present standards of space utilization often is a perplexing problem. In the May issue Peter P. Welanetz will describe how Williams College brought a new look to old buildings.

TV-Radio Center for Students and Local Citizens

ROYAL D. COLLE

Chairman, Radio-TV Department, Ithaca College, Ithaca, N.Y.



A YEAR ago Ithaca College in New York State dedicated one of the nation's most modern college television-radio studios. This center serves as a training ground for advanced TV-radio majors and offers opportunities for community expression and education to 15,000 Ithaca citizens.

The television-radio student at Ithaca College learns by doing. This had been relatively simple in the radio sequence because he was able to work under actual broadcasting methods and procedures at the campus radio station, WICB. But until the new studios were put in use in March 1958, the TV student gathered experience through make-believe studio equipment and field trips to commercial stations.

Today the center is putting on five hours of live television programming a week. On Friday evenings an hour-long telecast, "Community Spotlight," enters the homes of the city. Divided into four segments, the hour touches upon four of the following fields: industry, sports, painting, music, theater or dance, science, education, government, youth activities, and health.

A local TV dealer owns and operates a cable company, and the college has an arrangement with him to use one of the community system's channels for closed-circuit programming. Ithaca viewers are not obliged to look and listen to home fare, as a second channel on the cable carries the same network show the college program replaces.

The school's TV studio, 41 by 44 feet, has two vidicon cameras, which employ vidicon pickup tubes. Both cameras feature a four-lens turret and use 13, 25, 50 and 100 mm. lenses. The college is about to add a zoom lens. A 7 inch viewfinder makes the operator's task of focusing and framing easier.

Control, film, projection and observation rooms are well equipped.

The studio's lighting complement is as follows: 24 ten-inch spots, 14 sixteen-inch scoops, 4 six-inch spots, and two pattern projectors. These fixtures may be plugged into various groupings of receptacles that are individually controlled from the control room.

(Continued on Next Page)

Students view programs from observation room. Note some watch program via TV monitors above window.





Ithaca College TV-Radio Center is located on the second floor. College library is housed on the first floor.

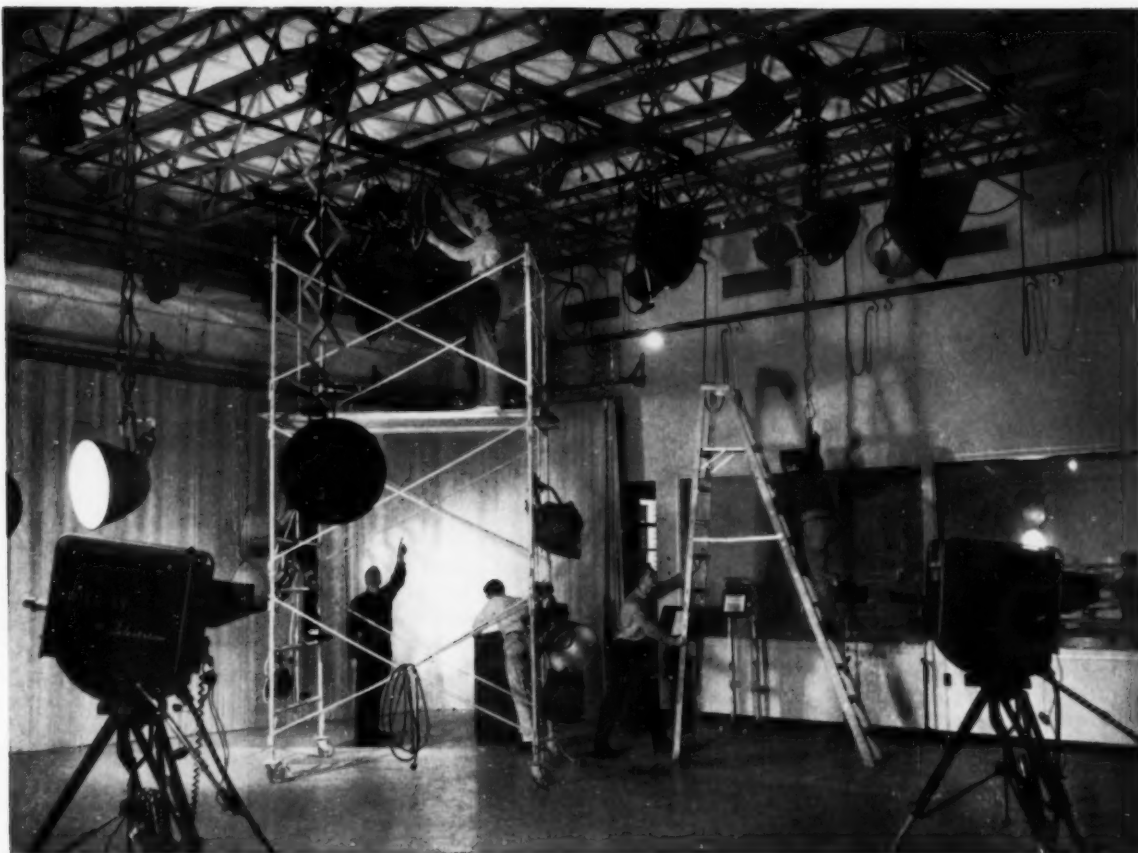


Section of film room. Located here is equipment which feeds Center's signal into community cable system.



From the Ithaca College control room, student directors and control personnel can view a program through the window as well as on master monitors and viewing mon-

itors. By participating in all phases of television production, the Ithaca student can best discover the television activity best suited to his particular abilities.



Student crews shown as they prepare lighting and sets for the daily TV presentation of the Ithaca College TV-

Radio Center. This practical workshop in TV production helps the student in his future career in television.



Dr. Frank Kolmin of the department of economics and business discusses the filing of income tax forms as part of the college's TV-Radio Center series for local citizens.



Mark Brinthaup, Ithaca College TV-radio senior, threads the 16mm. projector, part of the college's complete television film facilities located in the new building.

Intern Training for Our Business Managers

C. E. PROTHRO Jr.

Resident Auditor, Tuskegee Institute, Alabama

EFFICIENT business management is a major factor in the success of an educational program. The importance of competent business officers has been increasingly apparent as colleges have faced the problems of fluctuating enrollments, increasing costs of operation, declining traditional sources of revenue, and extending requirements for effective fiscal control and business management. The role of the business officer in effective human relations and in areas outside the business office needs to be maintained at a high level.

We have not developed the educational programs, internships, standards and incentives for attracting, educating, placing and holding qualified college business managers. This opinion is shared by many educators, business officers, and college trustees. Tuskegee Institute has itself experienced the problem of providing adequate business management for its varied services. It is usually difficult to locate and attract personnel who are sufficiently experienced in college business man-

agement to fill posts even at the junior executive level.

Members of the business staff at Tuskegee Institute have conferred with their colleagues in the field and with associates in other phases of the Institute's program in an effort to find a solution to the problem.

September 1954 marked the beginning of an intern training program at Tuskegee for persons interested in the field of college business management. The purpose of the program is to provide rounded experiences in college business management that supplement formal college training, thereby qualifying the intern to fill successfully a responsible position in a college business organization.

The program is directed by a committee of business officers and cooperating faculty members. Members of the committee are the president, business manager, cafeteria manager, budget officer, construction superintendent, purchasing agent, resident auditor, buildings and grounds superintendent, and hospital administrator.

The period of the internship affords 12 months of on-the-job experiences.

Candidates for the internship must have a bachelor's degree with a major in business administration, or other qualifications that meet substantially this requirement. They must be mature in judgment and outlook and possess a genuine interest in making a career of college business management. They must have character of a high order. Selection of trainees is made by the intern committee.

The coordinator for the program schedules a series of lectures and seminars on topics related to the experience content of the program. At least two such formal sessions are held each month.

Major presentations have included such topics as: (1) the role of the college business officer in the education of youth; (2) organization of the business office; (3) general investment policies; (4) general insurance; (5) organization of a physical plant department; (6) food cost control and volume; (7) a program for nonacademic personnel, and (8) purchasing.

In order to broaden the intern's experiences, observation trips are made to private and public supported institutions.

Type of Institution	Approx. Enrollment	No. Visited
Public	1000	3
Public	2500	3
Public	6500	1
Priv. church related	750	2
Priv. nonchurch	1250	1

Departments observed are the business office, physical plant and maintenance shops, warehouse, cafeteria, student union bookstore, snackbar and residence halls. (Cont. on p. 35)

Experiences Included in 50 Week Intern Training Program at Tuskegee Institute

1. Orientation. Faculty, staff, organization, campus tour, concept of business function in a college 1 week

2. General business office. Accounting, budgeting, cashiering, purchasing, management control 16 weeks

3. Physical plant operations. Maintenance, management of special services, new construction planning, specifications and supervision 6 weeks

4. Management of auxiliary enterprises. Food services, housing, laundry, family housing, guest house, production in educational departments, financial control of student organizations, general service units. 18 weeks

5. Financial management of special projects. Grants for research, patent policy, tax and legal problems peculiar to colleges, property and liability insurance 3 weeks

6. Faculty welfare programs. Retirement plans, group insurance, health insurance, business office concern for proper attitudes toward faculty welfare and their implementation 3 weeks

7. Federal government organizations and operations. Experiences at the Tuskegee Veterans Hospital 1 week

8. Review. Summary and final preparation of special project 2 weeks

Professional meetings conducted by the regional associations of college business officers are attended.

By the time he has completed one-fourth of the year's experience, the intern is expected to choose a topic of special interest. He supplements his regularly scheduled intern assignments with intensive study in this area of special interest. The project is discussed in seminars during the year and is presented as a formal written study at the end of the year. This gives evidence of the intern's ability to pursue meaningful investigation on a major problem related to college business management.

The staff that directs the business operations at Tuskegee Institute is well trained, experienced and interested in high professional standards. The majority of the staff members have had graduate training and practical experience totaling more than 10 years in their respective areas of college business management. These persons meet frequently to discuss mutual problems; they regularly attend professional meetings, and they often write articles and speak to groups of business officers.

Consultants are available to strengthen the basic intern experiences. Faculty members of the school of education serve in an advisory capacity to the program. Special cooperation has been given by the U. S. Veterans Hospital located at Tuskegee, and businessmen in the community assist with special phases of the training program.

Six Complete Training

Six persons have completed 12 months of training under the program. One is manager of a student union at a state college with an enrollment of 500; one is business manager of a church related college with an enrollment of 700; another is an accountant with a private college with an enrollment of approximately 700; another is an accountant at a state university with an enrollment of approximately 3000; still another is an assistant purchasing agent at a private institution with an enrollment of approximately 2000, and the sixth is in the U. S. Army.

Three persons are presently enrolled in the program. These young men come from colleges located in North Carolina and Kentucky. ■



Emory University students evicted by fire (see photo on page 37).

Those Fraternity Fires

JOHN MORRIS

Safety Coordinator, Office of Nonacademic Personnel
University of Illinois, Champaign

COLLEGES and universities depend heavily on the social fraternities, both men's and women's, for housing and feeding of large numbers of students. Yet the college seldom has any financial interest or responsibility in the fraternity or its property, and may be unwilling to impose on it the same system of controls and inspections applicable to residence halls owned and run by the college.

Likewise, there may be reluctance on the part of fire departments and other protection authorities to enforce the same safety controls on fraternities that they apply to rooming houses and hotels. For these and other reasons, many fraternity houses are not safe as living quarters. Some in the most literal sense are firetraps.

When fire strikes the average chapter house the occupants are in real danger, because most chapter houses are "built to burn." This conclusion must be drawn from frequent reports of fraternity fires and the heroic measures needed to get people out of the buildings. It is not often that we read about a night fire in a chapter house in

which the students left their bedrooms and went calmly down stairways or down a fire escape stairs out of the house.

More typical is this Alabama incident, as reported in the April 1957 *Fire News* of the National Fire Protection Association:

"Careless smoking was the probable cause of fire that originated during the night in the first story living room of this three-story brick, wood-joisted fraternity house. When the fire was discovered at 4:15 a.m. by one of the 15 occupants asleep on upper floors the fire was spreading up the open stairway that extended from the living room to the third story. As there were no other interior stairways and no outside fire escapes, the 14 boys and their house-mother escaped by dropping from windows.

"In 1943 state and local fire officials had recommended to the university president that adequate fire escapes be installed on the 36 fraternity and sorority houses. So far only four have installed outside fire escapes."

It was much the same when the Deke House at Mississippi burned on Dec. 12, 1957. As reported in the fraternity's *Quarterly* for May 1958, the fire damage was \$35,000, only partly

covered by insurance. Nine actives asleep upstairs were forced to jump from second story windows.

The Palm of Alpha Tau Omega, also for May 1958, reports a fatal fire at North Dakota State. The Emory University chapter of Phi Delta Theta lost the use of its house for several months when the upper half of the building burned May 13, 1958, in the middle of the night; a previous home of the same chapter had burned in 1931. These are typical chapter house fires.

Open Stairway a Hazard

What is wrong with fraternity house construction? The one worst feature is the typical open stairway all the way from the first floor or basement to sleeping areas. It is exceptional to find a fraternity house with properly enclosed main stairway or other stairway leading directly outside the building. Yet the danger can hardly be overemphasized. If you can walk upstairs from the living room of the house to the sleeping quarters without passing through one or more substantially constructed, self-closing fire doors, then fire originating in the lower part of the house will certainly follow the same path and carry deadly superheated gases and smoke right to the bedrooms or dormitory.

Here is what happens when fire

breaks out downstairs in a house in the night:*

"... As an undetected fire gathers headway downstairs, that heat is flooding up the stairway to the topmost hall. Blocked there by the ceiling, it spreads horizontally with rapidly mounting pressure. Or, as the firemen say, it 'mushrooms' until the hall and any rooms opening on it are surcharged with the withering gases, then it begins to bank downward.

"In a very short time gases become hot enough to ignite all combustibles within reach, thus giving a second fire — for, remember, that even heavy oak planks will burst into flame if bathed in air at 800°F. for 30 seconds. This is how fire spreads; not by patiently burning its way up the stairs one step at a time, but by sending its task force, rising heat, ahead to soften resistance."

This chimney action of fire was dramatized by wholesale loss of life in a series of hotel fires at Chicago, Du-buque and Atlanta in 1945 and 1946, when fire raced upward in the buildings through unprotected vertical openings. These and other tragedies of fire and panic are the source of construction fire safety principles of the Building Exits Code of the National

*Kearney, Paul W.: *Fire — The First Crucial Minutes*. National Fire Protection Association, 1958.

Fire Protection Association, a nationally recognized code for fire safety in buildings.

Although fraternity houses do not have the extreme height of multistory hotels, they are nonetheless vulnerable. A fire that demonstrated this destroyed the S.A.M. House at Illinois during the early morning hours several years ago. When firemen arrived at the scene, they had to spend the first valuable 15 minutes at the fire taking students off the roof. Fire starting in the basement had filled the ornate vaulted living room and upper floors with heat and smoke. There was no place to go except out the windows.

Fire Escape Not Enough

It is not enough that a chapter house is equipped with a good fire escape on the outside of the building. If occupants are to be able to reach it, the inside stairways must be so constructed as to prevent the upward spread of fire. To make alterations providing this sort of protection is not an insurmountable problem. At the second National Conference on Campus Safety at the University of Minnesota in 1955, John J. Ahern, then director of fire protection and safety engineering, Illinois Institute of Technology, said:

"It would be more serious if this were an impossible problem to solve,

Firemen try in vain to revive a student who suffocated in an ATO chapter house fire at North Dakota State, Jan. 2, 1958.



Photo: Fargo Forum

This fire did severe damage to the ATO house at the University of Missouri, in October 1957.



Photo: The Palm



Photo: Emory Alumnus

Fire at the Phi Delta Theta house at Emory University, Georgia, May 13, 1958.

but actually it is very simple. Even in our oldest buildings, the stairways can be enclosed by use of either a metal lath and plaster type of partition with good self-closing doors, or the more ornamental type of wired glass in metal frame enclosure. . . .

"In a recent survey of a typical fraternity house it was found that a three-story stairway could be enclosed using these movable partitions for approximately \$1500. . . . Please understand that a treatment of openings as outlined above will not provide a completely fire safe building, but it will slow down the progress of the fire and smoke long enough to enable the students to reach emergency exits. . . ."

Enclosed stairways are, of course, not the only thing to be considered in fraternity house fire safety. Automatic fire detection devices strategically placed will ring bells or send out horn blasts when fire occurs. An automatic sprinkler system will quench a fire as soon as it begins. Fire escapes are useful if interior stairways are equipped to hold back fire until people can get to them. Rope ladders, ropes and vertical ladder fire escapes for any

type of student housing are poor provision against fatal fires and are below the minimum essential acceptable under the N.F.P.A. standards.

Check Fire Safety

It would be a worth-while project for every chapter of every fraternity to take stock of its fire safety. Here are some of the points that weigh heavily:

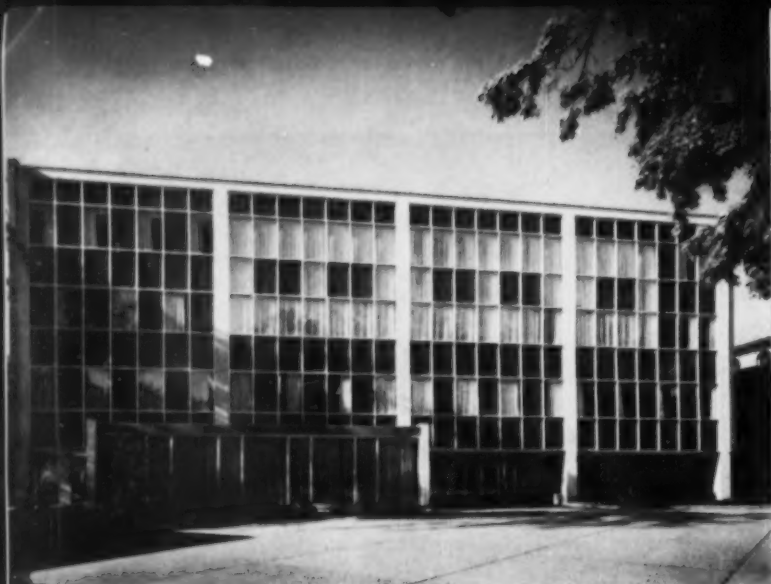
1. Good housekeeping in the basement and storage areas.
2. Adequate wiring brought up to date, to avoid overloading of circuits, and proper fuses of 15 amperes maximum capacity in fuse boxes.
3. Sensible decorations for the parties, including flameproofed paper. Christmas trees are almost explosive if neglected; follow the special fire prevention precautions.
4. Smoking safety requires large ashtrays. Don't tolerate careless disposal of cigarettes.
5. Provide a second way out from every part of the house, especially from sleeping areas and large public rooms.

The fraternities will play a more important part than ever in college

housing as enrollments swell 30, 40, and 50 per cent and more during the next few years. Houses now accommodating 40 persons will be encouraged to find space for 20 more. Crowding beyond the proper capacities will be condoned as necessary.

Substandard rooms, basement quarters, and attics will be ingeniously converted into living spaces, and fire safety will be given little thought in the conversion, unless the colleges and the parent fraternity organizations accept their responsibilities in safety and keep firetrap situations out of their chapter houses.

Any chapter looking ahead to construction of a new house or expansion or remodeling of the old should demand of architects and contractors good fire safety in construction for the sake of the lives of its members. Competent advice can be obtained through municipal fire prevention bureaus and fire departments in larger cities, through the state fire marshal of any state, or by writing the Campus Safety Association, National Safety Council, 425 North Michigan Avenue, Chicago 11. ■



Michigan's

SOL KING

President, Albert Kahn Associated
Architects and Engineers, Inc., Detroit

THE University of Michigan's library system, specially adapted to the requirements of the faculty and graduate students, in recent years had become critically overtaxed by the needs of a rapidly expanding undergraduate population. Consequently, in 1956, the university embarked on a building program to provide students in their first-through-fourth years with a separate building designed to meet their special needs and to offer such students an on-campus cultural and intellectual center. The new undergraduate library, opened for service last year, fits its program requirements precisely and is an achievement of note in the field of education.

Designed by Albert Kahn Associated Architects and Engineers of Detroit, in close collaboration with the university architect and the director of libraries of the University of Michigan, the new building is only the second separate undergraduate library in the country. It houses approximately 60,000 volumes by the open-stack method. Planned capacity, however, is for a book collection of from 125,000 to 150,000 volumes.

The library's contemporary exterior design and pleasant interior decor characterize the structure's informality, crispness and friendliness. Of reinforced concrete, flat slab construction, the building is a four-story and basement structure, completely air conditioned, and contains approximately



Top: Limestone facing covers all columns of new library. Frame in between is of curtain wall construction composed of aluminum grid-work, porcelain enameled metal panels, and plate glass. Center: End view of lobby. Tile wall in foreground encloses elevator shaft. Left: One of typical large reading rooms.

Library for Undergraduates

136,000 square feet of floor space. Planned for the utmost in flexibility, the module of the building permits easy rearrangement of free standing bookcases in any direction and will accommodate different and varied seating arrangements without major change.

Many Unusual Rooms, Services

Some of the highlights of the building include: an exhibit area in the main entrance lobby in which the Museum of Art can display various items of interest; a print study gallery on the west side of the fourth floor where students can view and study photographs and color prints; individual group study rooms on each floor; nonsmoking rooms on every floor except the fourth (smoking is permitted in most areas in the building); typing rooms where students can rent typewriters or bring their own; reading rooms in the basement for blind students; a film preview room where students and faculty may take films, mainly educational, and have them shown; an audio room equipped with 72 turntables, each for use by two persons with earphones, a control booth with AM and FM radio receivers, two tape playback machines, and 10 turntables. Anything played in the control booth can be tuned in at the 72 turntables or piped into a multipurpose room above.

A unique element in the undergraduate library is the multipurpose room,

Top: View taken from projection portholes looking into two-story multipurpose room. Motor operated sectional door enables area to be divided into two rooms. Center: Audio room showing arrangement of recording turntables. Right: Graphic arts study gallery where students can view photographs and color prints.



which is located on the third floor and seats 200. This room can be split into two smaller rooms by means of a folding partition and is equipped with a film screen projector, a public address system, and a pegboard on one wall for exhibitions.

Although large in size, the spacious reading areas provided throughout are designed to create an atmosphere of friendliness. The informal and varied seating arrangements, the screening, and the free standing bookcases are planned to afford ease of use and create a sense of privacy, quiet and freedom from distraction.

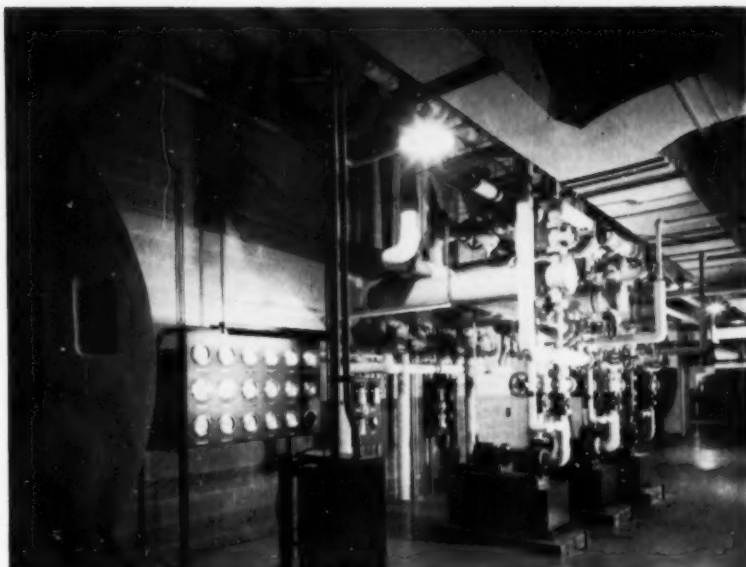
A colorful lounge in the basement houses welcome diversion from studying in a coffee club atmosphere.

Lighting was a major element in the design of the undergraduate library and dictated exhaustive predesign studies to determine exact library activities and lighting requirements. The high quality installation achieved as a result of these studies permits maximum flexibility of furniture and book-stack arrangements by providing lighting intensities above recommended practice, coupled with low brightness, throughout.

In the main entrance lobby, continuous rows of cool white fluorescent tubes, mounted above a plastic louver grid, produce 50 footcandles of uniform, high quality illumination. This enhances the attractiveness of the lobby and creates an appearance of spaciousness.

General reading rooms, 160 by 90 feet, are located on all floors from the basement through the fourth. Special merit pertains to the lighting of these areas where well proportioned spacing is achieved and the "bowling alley" effect, normally prevalent in long rooms, is eliminated by the installation of rows of 4 foot fixtures, on 6 foot centers, running the short dimension of the rooms, with a 3 foot gap between each 12 foot length. The fixtures are of the recessed fluorescent troffer type with diffused cast metal reflectors and grooved aluminum baffles that blend to become an inconspicuous part of the ceiling. The intensity of the installation, presently averaging from 65 to 70 footcandles, together with the low

Opposite Page: Ground floor plan of Undergraduate Library, University of Michigan, Ann Arbor.



Above: View of fourth floor fan room in the undergraduate library showing gauge board, hot-water heating converters, and pumps.

brightness of the fixtures, minimizes eyestrain and fatigue.

The design of the lighting for the multipurpose room, located on the third floor, is similarly multipurpose in character. Composed of both incandescent and fluorescent units, each separately dimmer controlled to permit all combinations of the two types of lighting, the installation provides 50 footcandles of illumination when both systems are in service.

According to university personnel, students now spend four to five hours reading and studying in this library without experiencing physical fatigue or eyestrain, and the high quality lighting has increased the efficiency of the staff as well.

Heating is accomplished by a zoned forced hot-water system that serves the convector radiation used for the perimeter heating. The supply main is run at the first floor ceiling with up-feed risers and the return main at the fourth floor ceiling. Low-pressure steam is supplied to heat exchangers from an underground central distribution main located in a tunnel near the building. This steam is used for the hot-water heating system, the air conditioning and ventilating system, and the absorption refrigeration machine, as well as a few cabinet heaters at critical locations such as entrances.

The air conditioning is basically a conventional low-velocity system using a modular arrangement of perfo-

rated ceiling panels for supply. The space above the suspended ceiling is used as an exhaust plenum. Cooling and dehumidification are accomplished by means of chilled water coils. The chilled water is produced by an absorption refrigeration machine from which the heat is removed by condenser water circulated through a cooling tower. The cooling tower is in a court between the fan rooms on the fourth floor level.

The plumbing system is comprised generally of gravity soil, waste and storm water piping with the basement areas being pumped. A recirculating hot-water system originates with a central underground hot-water main near the building and serves all required fixtures. Two circulating mechanically cooled concentric-tube drinking water systems supply the majority of the drinking fountains in the building with scattered "in-wall" package coolers.

The fourth floor fan room includes all heaters for the hot-water heating system and air conditioning and ventilation fans. A basement machine room houses the absorption refrigeration machine, condenser water and chilled water pumps, condensate pumps, and sump pumps.

An important feature of the mechanical trades design is the provision for sound control. This involved vibration-isolation mounting for equipment and piping and special attention to designing components and systems. ■

Dormitory Planning

M. E. SIEBERT

Editor, Daily Illini, Champaign, Ill.

INCREASED student enrollments in colleges and universities across the country have increased the building needs for living facilities. With the increasing building needs has come a new trend in residence hall planning and thinking: coeducational living and dining facilities.

Often called integrated housing or "community living," coeducational facilities are planned for the use of both men and women students living in adjoining dormitories or in the same residence halls. Dining rooms, washing facilities, lounge and recreation areas are currently being integrated in many universities and colleges, particularly in the Big Ten. Most plans are still in the temporary stage, but with the success of experiments at the University of Illinois, Purdue University, University of Minnesota, University of Michigan, and State University of Iowa integrated living is fast becoming a permanent trend.

Integrated dining had its origin at Oberlin College in Ohio in 1850. Under the mixed dining plan, men and women eat all their meals together, half the men dining in the women's residence halls and half the women in the men's residence halls. Deciding who goes where is done by a student-faculty committee, which also helps plan many of the meals with the commissary staff.

While many smaller colleges have incorporated mixed dining plans into their college programs, the University of Illinois was one of the first large institutions to try such a plan. Students themselves initiated interest and action for mixed dining and integrated living facilities in 1956 after women students moved into Arbor Suites, buildings intended for married student

housing but converted for emergency undergraduate use.

The closest dining facilities to Arbor Suite residences were across the street in the men's residence halls. Like many large campuses, the women's residence halls are on one side of the campus and the men's on the other, so it was not feasible for women to eat in women's residence hall dining rooms. Thus, men and women ate meals together for the first time at Illinois.

Student sociability, manners, dress, leadership and responsibility picked up noticeably among both sexes involved in the experiment. Only a few weeks after the women had moved into Arbor Suites, they had formed their own governing system and sent representatives to the all-campus women's independent governing group.

Socially, the experiment was also a success. Men and women ate together, studied together, and did recreational activities together.

Students Favor Integration

Since the success of the Arbor Suite experiment (concluded with the completion of a new multimillion dollar women's dormitory on the men's side of campus), administrators and students have been considering plans for other integrated facilities. Members of the men's and women's residence halls have formed a coeducational dining committee that has tabulated information and student reaction to integrating facilities. All nine university residence halls were favorable to some form of integration, although disagreement arose as to the degree. Some women students, for instance, didn't like the idea of having to give up coming to breakfast in negligees and pin curls.

However, all the residence halls agreed integrated dining was better than segregated dining. Thus, the dining committee sent a resolution and petition to university administrators voicing student interest in initiation of a mixed dining plan involving all residence halls. The dean of women, the dean of students, and the director of housing have all voiced favorable opinions and hope to see such a plan inaugurated soon.

In addition to the mixed dining plan, students and administrators are looking into the possibility of converting some of the newer and future residence halls into joint men's and women's housing. The dormitories are built in three or four units, serviced centrally by a services building, with common dining and lounge facilities. The plan has been suggested to use two of the units for men's housing and one or two units for women's.

Unfortunately, the location of women's residence halls on one side of campus and men's on the other, plus the physical problems in converting present dormitory facilities, prevent the integration of residences at Illinois and some other Big Ten schools. Adequate lounge space, closet space, dining space, pressing rooms, washing facilities, and counseling-meeting space are lacking in many of the older buildings.

Another disadvantage to switching over to integrated housing is the cost of setting up new building programs. Often expansion is virtually impossible because of the high cost of land and construction. It cost the University of Illinois \$3 million to build a women's residence to house 500 girls, without the space or funds to build a similar building for men close by.

The success of combining facilities rests primarily on the intangible benefits of the program. The student sociability, responsibility and intelligent thinking that have characterized the program at Illinois are benefits students don't usually get in the classroom, but they can learn them by eating and working together.

Although integrated housing is not a total realization at all Big Ten universities, it is obviously in the thinking of students, administrators and residence hall designers. With this backing, integrated housing should soon be a reality at Illinois and other Big Ten universities. ■

Those Struggling Development Specialists

THOMAS A. GONSER

Gonser and Gerber, Public Relations and Development Consultants, Chicago

IN MY book, the A, B, C's of a college or university development program are these:

A. A development program must spring from a guiding philosophy based on institutional self-analysis and long-term planning.

B. Such a program embraces three activities for the achievement of its objectives. (1) Public Relations — to build general acceptance for the institution. (2) Fund Raising — to obtain support for annual operations and capital improvements. (3) Recruitment — to provide more students of the kind wanted by the institution.

C. The program recognizes the interrelation of public relations, fund raising, and recruitment and the necessity of making them the responsibility of a single administrative office — making it possible to put development into the administrative chart of the institution as a "third function" on an equal basis with the educational-affairs function and the business-affairs function.

Because the development objectives require an outreach to various "publics" that cannot be achieved by staff alone, the director of development should be provided with a volunteer operating committee on development, established through the public affairs policy committee of the board of trustees and with a membership of representatives for various "publics" (special individual prospects, firms and corporations, foundations, alumni, churches, lawyers and trust officers). There should be direct lines of communication between the chairman of this committee, the president of the college, and the director of development — a triangle that permits an ef-

fective working relationship among board, staff and administration in the area of development responsibilities.

Through the president of the college and his direct lines to the policy committees of the board and the administrative officers in charge of educational affairs and of business affairs, coordination is assured. Without such collaboration, any development program would function in a vacuum.

However, there is more behind the development concept than mere organization and technic. I can best show this by discussing a few of the things that keep getting in the way of the development concept when we try to put it into practice.

Hard To Break Past Patterns

So far as organization for effective development work is concerned, the biggest obstacle is offered by the *habits and prejudices of the past*. Not only the institutions, but sometimes the professional organizations, and even the professional fund raisers, are resistant to changes of pattern. We have never seen long-term continuity of development work achieved without really integrated organization; or known of a purely public relations program that brought in money; or found a meaningful alumni program that wasn't tied in closely with the objectives of the institution; or observed an effective recruitment program that wasn't backed by alumni, parent, student and faculty activity; or seen a development program that was anything more than a plan on paper without the *people* to carry it out. But nothing in the world is going to keep some college officers from having to learn such things the hard way.

There is something even more fundamental to development work than

organization and staff. You can have the right board of trustees, headed by the right kind of chairman, and with the correct type of development committee working in collaboration with a well informed committee on educational planning and a sound committee in charge of business affairs. You can have the perfect president — an administrator with broad experience in education, business and public relations — and he may have been given the most able kind of staff to work with. You may have selected the right "publics" to go to work on, and then fail in that work by descending upon the individual prospect with a statement of your institution's money needs that passes over his head completely. Those needs, to be sure, are very great, but you have not taken into account his small understanding of the meaning of your institution and the things that make it tick.

Must Educate Donor

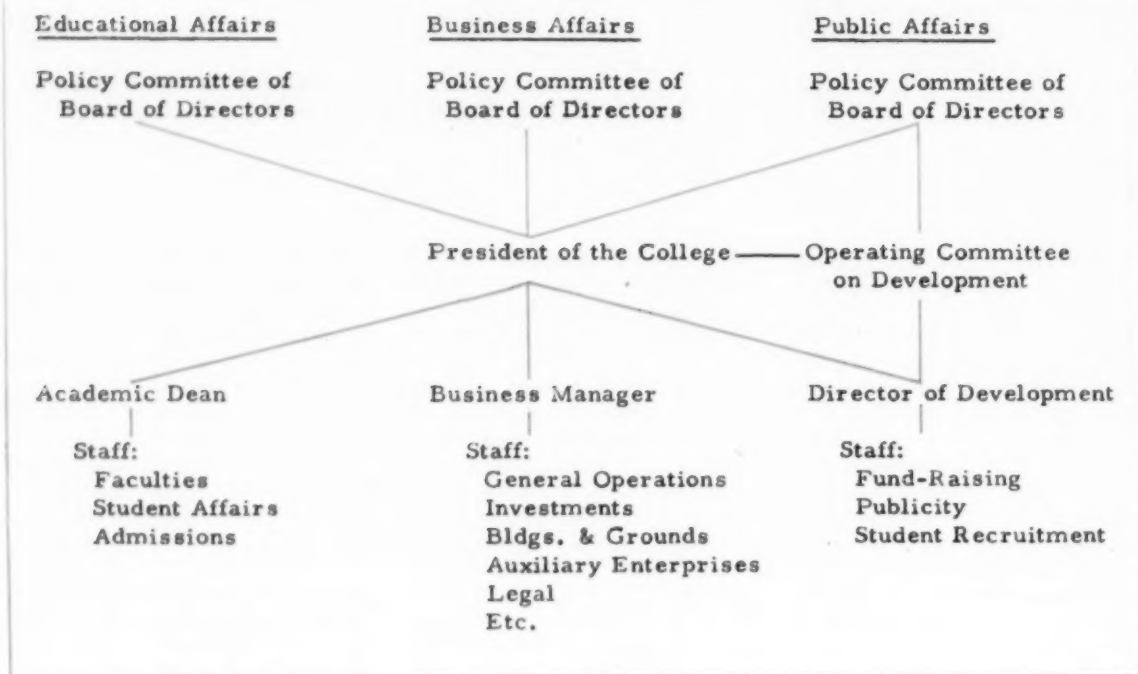
College officers need to keep constant guard against becoming so wrapped up in their money needs that they *lose sight of the prospect himself*. For unless they really educate him in the meaning of higher education, the prospect becomes the forgotten man.

It should be made a cardinal principle to let nothing — not even money, when it is given blindly — stand in the way of this element of the development concept: *the function of projecting the story of the institution and what it is doing*.

Recently, with the president of a great western college, I talked with an officer of one of America's top corporations. We were told that the institution was being included in the corporation's "benevolences" on the basis of

From a paper presented at a joint meeting of the American College Public Relations Association and the American Alumni Council, St. Louis.

COLLEGE ORGANIZATION: ITS THREE FUNCTIONS



its formula for giving. The corporation made its appropriations strictly in terms of the colleges that had provided it with personnel.

I told the corporation officer that I didn't like the way it was done, that we wanted people to look at the *institution* and measure it in terms of what it was *doing* that was worthy of support. Unless people will do that — unless our institutions are willing to stand up and be measured — it's a lot easier, and just as meaningful, to get all the money from the state. That officer never did admit that I was right. But some day the reality of education may dawn on him, as it has, for example, upon a man I know who owes his life to basic biological research at a college of liberal arts, where research wouldn't have been sponsored under such a formula.

Not an End in Itself

College administrators and corporate officials are not the only ones who frequently fail to set their sights on a level with the development concept. The professional in the field — the

staff man and even the consultant — can slip, too!

For one thing, in sheer scope of responsibility, this job is unmatched anywhere in business or industry. The development department at a college is the sales, the advertising, and the public relations departments all rolled into one — and on top of that, because of the character of an academic institution, a great part of the job must be done by indirection. But in spite of this weight of responsibility, development is only a service department.

Development work has no meaning apart from the institution that is doing the educational job.

It is so easy for the development officer to get trapped in busy-work: keeping records, doing clerical work, putting out publications, running special events and dinners, and getting people together as individuals or groups, just because these things are functions of his office. Yet all of this is not worth a snap of the fingers if people are not shown *why* the development office exists: chiefly to serve humanity by building education.

College development work is a field that is still in the process of achieving recognition as a profession. It is a job that cannot be proved in advance, or made to work by just importing Yale's plan or Northwestern's plan. Most development officers are still fighting for position — and are slowly getting it. Even the best of them are being challenged in everything they do — by the president, the trustees, the alumni, and other key participants, any of whom may let the program down out of failure to understand and recognize their responsibilities.

But these struggling development specialists are the men and women responsible for challenging people inside and outside our institutions to set the pattern for educational philanthropy of the future. It will take not only great ideas, but also big men to fill the requirements of that pattern: to organize, to work, to administer, to participate, to understand, to contribute. There is no question of the greatness and the reality of this cause, or of the necessity for unceasing efforts to interpret it. ■



Facilities for students taking courses in photography should be kept entirely separate from those used for college production; otherwise the danger is too great that solutions become contaminated or costly equipment damaged. (Dr. Horrell in background.)

CAMPUS PHOTOGRAPHY

C. WILLIAM HORRELL and ROBERT A. STEFFES

Director, Photographic Service, and Assistant Professor of Journalism, Respectively
Fresno State College, Fresno, Calif.

IN A midwestern college, the president needed a set of campus slides in a hurry to illustrate a building campaign. In the news director's office, a PR man was trying to round up someone to shoot the laying of a cornerstone — with no success. In the registrar's office, a wail was going up for clearer photostats of transcripts.

When the complaints converged, a small delegation of administrators took a set of keys and walked over to a dank basement, labeled "Darkroom."

The vice president bumped his head on a low beam, the acrid odor of dried

hypo irritated the nose of the registrar, and the business manager wiped dust from the \$265 enlarger he recalled purchasing a year ago. The visit was short, the indignation apparent. "We've got to do something about photography" was the consensus.

Thus began the typical search for advice, ideas, floor plans, and personnel to establish a photographic service department. The thinking was clouded, as it often is on this subject, for photography is technical, serious and expensive. Yet, someone is sure to point out how simple and unacademic

it is, and he'll tell you how well his vacation snapshots turned out although he "didn't know a camera from a light meter." Another will imply that this picture business can't be so tough — "Look at the wonderful work that *sophomore* did on the yearbook pictures this year!"

The sober fact about campus photography is that it is growing in demand faster than we are keeping up with it, and that students as well as professors are clamoring for pictures, darkrooms and classes in photography.

(Continued on Page 46)

Consider the variety of photography your school is asked to produce. There are record pictures, such as identification shots of the student body; building progress shots, and the copying of documents. Public relations pictures are needed for the press to interpret the school's functions, goals and activities. Visual education material is now demanded at the local level, too. Students want a course in photography, and finally, student publications gobble up campus "art" at an alarming rate.

Selecting the Director

The goals of the photographic unit will determine to a great extent the kind of director needed, but these goals and the selection itself must be one of the first concerns. If the unit is to be primarily a copying and finishing laboratory requiring little or no creative work, if its function is to provide pictures at low cost regardless of the communicative or artistic value, then the director could be a professional technician of nonacademic status. Such a director can be hired for a relatively low salary.

A department concerned with the production of creative and effective communicative photographs should certainly be directed by a top-notch professional photographer with academic status. Such a person is in a better position to understand the problems of academic personnel. Further, if students are employed, the educational value of the student work program probably will be increased under a director who has academic status.

Photographic service units directed by one who is primarily a teacher are likely to fall short on production and deadline schedules, especially if the teacher devotes the lesser part of his time to the service responsibility. A production worker is likely to concentrate on getting the material out on time, but will pay less attention to investigating new ways of serving the school via photography.

Finally, if a library of audio-visual materials is maintained, some schools may wish their director to supervise both activities. The relationship between the two activities is not nearly so close as their titles might suggest, however.

Where, in the administrative chart, then, should the photographic service

be placed? If we assume such a service exists to serve the entire school's needs, the most logical placement is directly under the president's office. Here the director is less likely to be partial in his service to the various departments than one who reports to a dean or department chairman. He will not be pressured into meeting impossible deadlines, purchasing highly specialized equipment, or devoting large blocks of time to a select few. Instead, he will analyze all demands to provide the best service for the majority.

Setting Up Policies

The president and the director should formulate policy together, recognizing the common problems that befall a photographic service. Most photo services start out modestly, and find that demands increase each year as the "word gets around." Surely the policy should begin with these points:

1. What persons or groups are privileged to use the services?
2. What are the prices for these services, and the procedure for transferring funds?
3. What limitations are placed upon the services, including the volume and kind of work, and acceptability of rush work?

The foregoing points should be supplemented with numerous minor decisions in policy, including the following:

1. To what extent is the director of the service expected to cover picture events at night and on week ends?
2. What about faculty requests for pictures of the family, or the board member who wants a mural for his wall?
3. Are faculty members ever allowed unsupervised use of the darkrooms during off-hours?
4. What is the relationship between the service and student publications?
5. Are visitors permitted in the darkroom during work periods?

As any darkroom director will attest, there are constant requests, chiefly from students but also from faculty members, to use the facilities. When outsiders use a laboratory, the chief problem is security of materials and equipment, and the unhappy fact that the lab is usually left in a messy condition. Only a check-out system can protect it from loss or damage,

and the occasional workers should never be allowed to use a production darkroom.

Contamination of developers and fixers, and exhaustion of film developers without a record being kept of their use, is another problem of "public" darkrooms. Some supervisors insist that anyone using the space must provide his own chemicals.

Advantages of Centralization

Next we should examine the pros and cons of centralization *vs.* decentralization. Centralization will do the following:

1. Reduce cost of considerable duplication of equipment. For example, if 12 departments have darkrooms equipped with one enlarger each, used on the average of two hours a day, then a centralized service with three enlargers could produce the same quantity of work. A saving of three-fourths in equipment costs could be realized.

2. Reduce the physical plant facilities and space requirements. Modern darkrooms require hot and refrigerated water, air conditioning, and stabilized electric power. It is evident that 12 separate installations will cost far more to install and maintain than one large centralized area, and considerably more space will be required for separate facilities.

3. Provide the services of a professional photographer for *all* departments. It is hardly feasible to acquire this talent for each department. In many cases of decentralization, the professors end up doing their own photographic work, which results in a high rate of pay for this commodity. Also, many professors do not understand certain fundamentals of photography, and the question arises whether academic professors should learn photography or photographers should learn the problems of the professors.

4. Permit quantity purchasing and reduce paper work for the purchasing department. Quantity discounts reduce commodity costs.

5. Provide for adequate storage and controlled commodity inventory. Many photographic materials deteriorate rapidly under high humidity or heat. Centralized storage helps protect the investment in perishables.

6. Provide for group supervision and training. Unless a professional

photographer is available to teach the new workers, time and materials are wasted in trial-and-error methods.

7. Provide for a centralized print and negative library. Although the archival worth of a good negative library is invaluable, many times negatives or prints are filed in a disorganized fashion or may not be filed at all.

8. Provide for coordinated coverage of school activities and events. When not coordinated, football game or homecoming photos may be duplicated by the public relations, yearbook and school newspaper photographers.

9. Provide for volume work with organized production flow. It takes only a bit more time to process 20 sheets of film than it does one or five. Thus, if 12 separate photographers process one or two sheets of film, the cost will be 12 times as great in a decentralized unit.

10. Provide an accurate cost of photography for the entire school. When all photographic activities are centralized it is simple for the accounting office to arrive at one cost figure.

Otherwise it is almost impossible to do so because of the lack of uniform reporting.

11. Provide for some standardization of equipment that makes local repair and maintenance feasible. Spare parts for standard equipment can be stocked.

Decentralization's Advantages

Decentralization has its advantages, too, and here are the important ones:

1. Provides professors with facilities immediately available for experimental studies that involve perishable research materials.

2. Provides equipment that does not have to be checked out and can be available for use at all hours of the day or night.

3. Requires less time and travel to pick up work and place orders.

4. If an organized file is maintained by a decentralized department, permits the person in charge to locate a desired negative or print more readily.

5. Requires less briefing and better personal contact with the individual he works for, if there is a photographer in the department.

6. Does not disrupt other production, if a sudden volume of rush work comes in.

7. Lessens the likelihood of personality clashes between a professor and his photographer concerning technics.

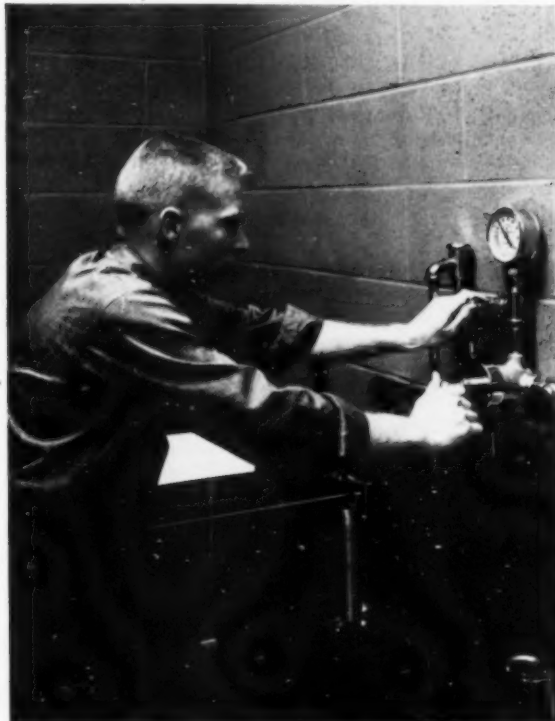
8. Lessens concern about security of equipment. There is no need to store chemicals between processing sessions if others do not use the space.

9. Permits resumption of interrupted projects, for later completion, without need for clearing the area for others.

Reasons for decentralization are sometimes vague, and photo labs spring up in unexpected places. Some of these are rarely used, though they contain costly equipment. In many instances, the facilities would be put to better use if they were turned over to campus groups that need a darkroom, such as campus publications or a camera club, or if they were made available to faculty members who are competent, but only occasional, photographers.

If decentralization is chosen, some positive effort should be made for a

Plumbing and electrical installations in modern darkrooms are complicated and costly. For this reason a permanent building is better for this unit than temporary quarters, which may necessitate reinstallation later.



Some highly specialized departments require a separate darkroom, such as those requiring work done at odd hours or on short notice. But these operations are costly. Professors make high priced laboratory technicians.



training program of the individual workers, conducted by whoever is best qualified on campus, or by a local professional. A fallacy that is hard to shake in the minds of professionals in other areas is that photography is a matter of "following a set of directions" and not much more. Yet there are no formulas or simple directions for a great segment of photography, and surely no little recipes for creative photography.

Using Student Help

If an important function of the photo department is to provide experience supplementing formal photography classes, then part-time students belong on the work force. The academic time allowed a photo course does not allow the mastery of many technical skills. But work in a centralized photo department that is doing creative work can provide many experiences, situations and practice of skills that an employer would be happy to see a student possess when graduated. If this work experience is considered important, a student should be allowed to work in areas such as photo-journalism, public relations, scientific work, movies, commercial work, color and copying.

But students must be closely supervised during their first year or two. And if the student works only two or three hours a day, he has difficulty organizing his work with others. A full-time supervisor should assign and check the work of each student daily, plan the work for the next day, and continually check on the progress of production.

Students cannot be expected to come to a photo service adequately trained. Even those who know the basics must learn production methods.



Students cannot be expected to come to a photo service adequately trained. Even those who know the basics must still learn production methods.

ing pictures other people want at a specific time. The wide variety of photographic demands in a college makes it necessary to give broad training to the student help.

As mentioned previously, short work periods should be avoided. Many photographic assignments require considerable setup and make-ready time. If a student works two hours a day, it may take him 30 minutes to get set up and receive his instructions. If the job must be completed by someone else, he must then leave instructions for the next person. This finishing-up time may be as long as 30 minutes. So, out of two hours, he may have put in only one hour of productive work. Broken class schedules make necessary the use of late afternoon and early evening hours for student help, which is undesirable but often unavoidable.

The complete turnover of staff that occurs about every four years requires continual training of a student staff.

If a college or university is interested in providing the most efficient service at the lowest cost, a staff of full-time professional photographers probably will be the answer. Such staff members maintain the continuity of production and do not require inservice training. Further, they can take assignments that require a full day or longer, whereas students cannot.

Self-Supporting?

What should be the fiscal basis of a photographic service? Should the unit be self-supporting, i.e. should it attempt to recover costs by passing on the total costs to departments using its services? Or should such a unit be totally or partially subsidized?

Having observed the same photo service operate on a self-supporting basis and also on a greatly subsidized basis, I believe these observations may be helpful to those planning a department.

1. A self-supporting basis (which raises the per print cost to the "customer") will increase the demand for decentralization of photographic work. A professor does not usually consider the time it costs to produce a photograph; he considers only the cost of materials, which is much less than time costs. Therefore, he will consider any cost above materials too high and will attempt to set up his own department of photography.

2. A service department that is

greatly subsidized requires less paper work than one that recovers costs.

3. A department that charges for materials plus a small overhead will find an increase in demands and may find some demands unreasonable.

Where To House the Service

To answer the important question of where to house the photo service, obviously a centralized photo unit should be centrally located. Yet, when a location is being investigated by an uninformed person, the first thought is, "What basement can we make available?" The usual basement is not desirable even for small processing rooms because of high humidity and low ceilings. Enlargers need head room.

The following general physical plant facilities should be considered:

1. Draw up a master plan for space usage and expansion. A successful photo department will grow. Growth means more space and facilities. Remodeling of existing spaces usually is expensive. Careful planning will enable a department to use existing facilities both now and later, and yet provide for expansion.

2. Attempt to establish a photo service in permanent or semipermanent quarters. The nature of such facilities requires an expensive outlay of plumbing and electrical equipment. A move to new quarters is costly and time consuming and should be avoided whenever possible.

3. Never attempt to use a service unit's facilities for both instruction and production. The purposes, goals and personnel conflict with each other on many occasions. Instruction and service facilities should be physically separated from each other, but this does not imply that they cannot be adjacent if plumbing and electrical arrangements are simplified by such a layout.

Cinematography is one area in which production and instruction may have to share facilities, for laboratory fees would be prohibitive if students were required to pay for the cost of their materials. In this area, work on motion pictures as a service project might be undertaken as the laboratory work in a formal class in cinematography.

4. When possible, all photographic physical plant units should be in one area. This permits better supervision, and security of equipment is greater in a consolidated area. ■

Retail Method of Inventory

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THE purpose of this study is to observe some present practices in bookstore inventory management, compare them where possible, and suggest some needed improvements. The study is concerned primarily with the institutionally owned store, although the suggested improvements in inventory management would apply equally to a privately owned store.

Before examining inventory management in college stores, we need to know why we operate a college store. Its function is to serve the educational program by making it possible for students to receive instruction in the most favorable circumstances.

With annual sales of approximately \$75 per full-time student, college store operation justifies sound management. The need for good management of college stores is well stated by Dr. John Dale Russell in "The Finance of Higher Education" as follows: "Although the auxiliary activities (*i.e.* bookstores) must be justified by their contribution to the educational objectives of the institution, they must nevertheless be soundly managed . . . Good management is necessary in order that the maximum of educational returns may be obtained from the funds available for their support."

In 1953 the National Association of College Stores Inc. published a "College Store Operational Manual." It is an extremely valuable guide to efficient and effective store operations and should be used by all college store managers and college business officers.

One of the procedures recommended by the N.A.C.S. manual is the retail method of inventory. Briefly stated, the retail method means that the inventory is priced at retail, subsequent purchases are added to the in-

ventory at retail, and net sales are subtracted to give the new ending inventory.

The manual points out the advantages of the retail method of inventory as follows: (1) permits periodical determination of profit without resort to physically counting the inventory; (2) discloses stock shortages; (3) affords a basis for insurance settlements and coverage, and (4) facilitates the intelligent planning of sales, stocks and purchases.

Part of Good Management

These advantages seem to be a necessary part of good management. Yet, in the 1953-54 operational survey prepared under the auspices of N.A.C.S. by Stanley B. Hunt and Associates, only seven stores reported inventory data on a retail basis. There seems to be no doubt that fewer than 10 per cent of the college stores use retail inventory. Store managers explain this by saying that the retail inventory is more trouble than it is worth. They feel that if they keep their inventories low and move "dead" stock they are operating satisfactorily. But they admit that they do not have the advantages of the retail method of inventory.

In institutionally owned stores, management is the responsibility of the college business officer. Therefore,

he must accept the responsibility for not encouraging the use of the retail inventory. Furthermore, since he is also responsible for the accounting function, he is able to provide the necessary accounting services that will minimize the extra work of the store manager. The accounting function must be performed properly and in close cooperation with the store manager.

W. A. Paton in "Accountants Handbook," 2d edition, states: "The method (*i.e.* retail) will give accurate results only where great care is exercised in handling invoices, marking goods, reporting markups and markdowns, and where buying and merchandising staffs cooperate with the accounting department to the utmost." The accounting office can provide the services easily. It has a record of the beginning inventory, it accumulates purchases and sales, and therefore it need only perform the additional step of computing the ending inventory. A simple illustration is given in the table below.

The computations must be completed for each type of merchandise, *i.e.* textbooks, tradebooks, supplies, sportswear and the like. Comparisons of over-all figures between successive periods or with other stores would have little value. The margin percent-

Retail Store Inventory Accounting

	Cost	Retail	Margin	% Margin
Inventory, beginning	\$10,000	\$12,500	\$2,500	20
Purchases, net, delivered	20,000	25,000	5,000	20
Total	\$30,000	\$37,500	\$7,500	20
Sales, net	22,000	27,500	5,500	20
Inventory, ending	\$ 8,000	\$10,000	\$2,000	20

PRICE CHANGE REPORT

Dept. or Class _____
 Date _____
 Prepared by _____

Markdown ☐ Cancel ☐ Markup ☐ Cancel ☐
 Employee Discount ☐

Item	Quantity	Present Price \$	New Price \$	Difference \$
Total		\$	\$	\$

Source: College Store Operational Manual (1953); Published by the National Association of College Stores, Inc.

ages may be computed from the previous year's gross margin figures if each type of merchandise has a standard markup.

Two additional steps are necessary in order to procure an accurate retail inventory. One is the recording mark-downs, employee discounts, and additional markups. Each of these changes affects the selling price and therefore the ending inventory. This function must be performed in the store. A simplified price change report as suggested in the N.A.C.S. Operating

over on a monthly average basis. Turnover based on the average of yearly beginning and ending inventories has little value for comparative purposes because inventories fluctuate widely owing to peak selling periods.

In the 1953-54 operational survey of N.A.C.S., the average stock turnover reported for merchandise other than textbooks and tradebooks was 2.4. In an attempt to "obtain a yardstick," the N.A.C.S. turnover rate is compared with other retail stores in the table illustrated here.

Comparative Summary of Retail Store Operation

Year	Type of Retail Store	Annual Sales	Turnover Rate	Mid-Range ¹
1954	N.A.C.S. survey	\$ 325,000 (ave.)	2.4	
1952	Local limited price variety chains ²	up to \$2,000,000	3.4	2.2-4.1
1957	Specialty stores ³	up to \$ 250,000	3.9	2.8-5.4
1957	Specialty stores ³	\$250,000 to \$1,000,000	4.1	3.1-5.6
1957	Department stores ³	up to \$ 250,000	2.5	1.9-3.3
1957	Department stores ³	\$250,000 to \$1,000,000	3.3	2.4-4.2

¹Mid-range means that 50 per cent of the stores operated within this range.

²Source: Operating results of limited price variety chains in 1952.

³Source: Operating results of department and specialty stores in 1957.

Manual (see table at top of page) should be completed and forwarded to the accounting office so that it can be included in the ending inventory computations.

The other step necessary to ensure accuracy of the retail inventory is proper accounting or allowance for credit memorandums, particularly those due and not yet received. Credit memorandums, either receivable or on hand and not yet applied on purchases, should be listed by the store manager by type of merchandise and forwarded to the accounting office. Since they represent canceled purchases they may be used to reduce purchases.

From the point of view of the college business officer, one of the most important management advantages of the retail method of inventory is that it provides a measure of inventory turn-

Certainly the college stores' turnover rate is too low by this comparison. Sales of the variety chains are most nearly similar in type of merchandise to college stores sales exclusive of books. A percentage analysis of variety chains sales is shown above. Department stores sales include home furnishings while specialty stores have a high percentage of women's apparel sales. The turnover rates of the stores listed varied little over the past few years.

The N.A.C.S. manual points out that there is danger in too high a turnover rate as well as too low, and then the manual states: "Nevertheless, if an error must be made it is better to err on the high side than the low. Rapid turnover has the advantage of minimizing markdowns. Less inventory means less chance of slow selling stocks and less soiled and shopworn

Percentage Sales Analysis, Local Limited Price Variety Chain Stores, 1952

Type, Merchandise	Per Cent Sales
Apparel and accessories	26.55
Dry goods and domestics	8.06
Notions and smallwares	6.96
Hardware	7.07
Home furnishings	7.06
Drugs and toiletries	6.10
Toys, games and books	9.10
Stationery	8.11
Jewelry	1.95
Soda fountain	6.61
Confectionery and nuts	5.64
Souvenirs, novelties, etc.	1.87
All other lines	4.92
	100.00

Source: Operating results of limited price variety chains in 1952 (Harvard University Press).

merchandise and minimizes buying mistakes. Rapid turnover tends to reduce certain expenses, . . . i.e. interest, insurance, storage and perhaps rent charges." Furthermore, dollars released by reduced inventories can be used advantageously in other ways by most institutions. If they are not needed they always can be invested.

There is a wide difference of opinion as to the proper size of the college store inventory. Minimum inventory requirements were set forth by W. A. Baude of the University of Cincinnati in the November 1949 issue of COLLEGE and UNIVERSITY BUSINESS as follows: "Each merchandise item, except books, is analyzed as to minimum inventory requirements. Ordinarily, this minimum represents a three weeks' supply of sales. Items having seasonal sales require special attention but can be easily noted in some manner." Certainly this is a minimum inventory.

The most efficient maximum inventory is more difficult to determine. Storage facilities, distance from suppliers, cost of handling, including order processing and payment, cash available, quantity discounts, and type of merchandise are some of the variables that must be evaluated.

In summary, this study leads us to the conclusion that inventory management in college stores is inadequate. The adoption of the retail method of inventory would provide the needed management information. College business officers should take the action necessary to improve inventory management through use of the retail method in their college bookstore. ■

IN LAST month's article, general procedures were discussed in relation to fraud detection. Variations in these procedures may occur, of course, according to the particular circumstances of each case of fraud.

For instance, notification procedures may vary if the first proven act of fraud is very large or relatively small. When the first peculation is found to be unusually large, it would be necessary to alert immediately all of the responsible institutional officers that would be concerned; also, the insurance company and, in the case involving a tax supported institution, the state's attorney would be alerted immediately.

If, on the other hand, the first proven defalcation is fairly small, the institutional officers may not be notified until the last stage of embezzlement proof; the three stages are reasonable suspicion, definite proof, and extent determination.

Sources of evidence or proof in a case of fraud may be classified as non-interviewing and interviewing. The noninterviewing sources, of course, are used in all three stages of proof uncovering, whereas the interviewing sources, including the interview of the perpetrator of the defalcation, are employed usually in the last proof stage of extent determination. Under certain circumstances, however, and sometimes as a last but valuable resort, interviews other than the one concerned with confession are used in the definite-proof stage.

Noninterviewing sources of evidence consist of all records—both financial and nonfinancial. Interviewing sources consist of the person-to-person information gaining type and of the conference type; the latter is set up and managed by the security officer for talking with the embezzler. Nonfinancial records may contain the only evidence of peculative acts if the defalcator has succeeded in circumventing all financial records.

Financial and nonfinancial records are useful in establishing the patterns of the peculator regarding his business and personal activities—credit ratings and bank balances, vacations and sick leave taken—and comparing these with the pattern(s) of his defalcations.

All records are useful for locating specimens of the peculator's handwriting and signatures. Information gain-

Concluding a second series on

Auditors Aid Administration Through Fraud Disclosure

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ing interviews with persons other than the defalcator would be useful in establishing the pattern of the peculator's personal life and of the procedures in the office in which he works. Does the embezzler lead a questionable kind of life from a social point of view and are certain important controls omitted in office procedure? Finally, how do these patterns compare with the pattern(s) of peculations?

The conference type of interview leading to a signed written confession by the embezzler requires expert handling. The peculator should be allowed representation through someone other than himself, such as a personal lawyer. The collegiate institution should have representation other than the security officer properly to witness the interview. The interview, for instance, should be above criticism in every respect. Questions and statements presented for the peculator should be forthright, honest, factual and relevant. No promises, threats or bluffs should be employed. By these standards, a properly witnessed and signed admission of guilt would be above reproach in a court of law.

In an educational institution, an outside recipient of a service from an auxiliary enterprise complained to the business office that after repeated efforts he could not obtain a receipt for a cash payment made to the service secretary at the enterprise.

The internal auditors were contacted; they went to the nonfinancial recording of the service performed for the outsider and found no receipt number noted on the record as required by normal procedure. Then the auditors examined one entire file of these nonfinancial records, listing any for which there were no receipt

notations. The service recipients listed were mailed confirmations; many replied that they had paid the service secretary but did not receive a receipt. Also, the auditors could not find any business office credits for payments by these service recipients.

Procedures that had been set up and not complied with were as follows: The secretary was to fill in duplicate receipt forms which the service requester was to take to a business office cashier and make payment. The requester was then to present a copy of the receipt certified as paid to the performer of the service before the performance thereof.

In this case, the auxiliary enterprise and the college of which it was a part had allowed the embezzler completely to circumvent regular controls. In other words, the breakdown of procedural control that made the embezzlement possible was the fault of the institution. For this reason and since full restitution of proven peculations had been obtained, an insurance claim was not made and the authorities concerned with the case refrained from legal proceedings.

With the combination of a partial restitution and institutional fault, of course, the institution may wish to make a claim against the insurance company to recover the balance of its loss. Legal proceedings against the peculator may or may not be pressed according to the circumstances of the case.

Institutional employees have a personal obligation to be honest and to pay for dishonest acts. Colleges and universities, on the other hand, have a social responsibility to teach honesty and prevent dishonesty, but, if the latter occurs, to fight it with complete honesty. ■

Retirement Program

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THOSE responsible for the administration of college retirement plans should review Section 23 of the Technical Amendment Act of 1958¹ with care. Its provisions can best be explained in terms of the past. Until Section 403 of the Internal Revenue Code of 1954 was thus amended, the employees of colleges, universities and other nonprofit organizations were not required to report, as part of their current taxable income, any portion of the amount paid by their employers toward the purchase of their retirement annuity contracts.

This is not tax exemption, but merely tax deferment, since the retirement income itself, when received under the terms of the annuity contract, will be subjected to taxation.² However, since the tax rate of the individual after retirement is usually substantially less than during his period of active service, owing to the increased exemption granted to individuals over 65 years of age, and the fact that retirement income is usually much less than that received before retirement, many individuals have found it to their financial advantage to accept a larger portion of their total compensation in the form of increased retirement annuity contract premiums paid by their employer.

The majority of present retirement plans of the colleges were formulated years ago when the federal income tax rates were much lower than they are at the present time. The undeniable psychological value of having an employee share in the cost of his own pension plan was paramount in the minds of those formulating the retirement programs. Today, however, with all citizens called upon to pay the costs

of past and future wars, it would seem desirable to restudy the tax implications of this concept. An employee's portion of the retirement annuity contract premiums, if deducted from his salary, is subject to immediate taxation at current high rates, whereas his employer can pay it with tax free dollars.

The retirement plan of a commercial corporation must grant substantially similar benefits to all employees in the same salary bracket in order that the payments made therefor shall be deductible by the corporation for tax purposes. The Commissioner of Internal Revenue,³ before approving the retirement plan, must be satisfied that it does not "discriminate in favor of employees who are shareholders, officers, persons whose principal duties consist in supervising the work of others, or highly compensated employees."

Uniform Percentage Basis

A nonprofit corporation is not subject to this requirement to qualify its retirement plan, and, until the 1958 amendment, it was free to make as large a contribution as it saw fit to the retirement annuity contract of any one of its employees.

Despite this freedom, the majority of college retirement annuity plans are still on a strictly uniform percentage basis, with the employee usually paying a premium equivalent to 5 per cent of his annual salary and his employer paying 5 to 10 per cent. The retirement needs of employees are not uniform. Some can and should set aside a larger proportion of their total compensation in order to protect their old age. Few colleges have been able to "fund" their accrued retirement obligation to their older employees and, as a result, many employees reach the age of retirement

without accumulating adequate retirement funds.

A tax conscious employee, past the age of 50, probably would prefer to have an additional \$500 paid into his retirement annuity contract each year rather than receive the same amount as an increase in his salary. Fortunately, a college is free to tailor its retirement program to meet the individual requirements of its employees, subject only to the limitations established by the 1958 amendment.

This amendment was drafted to prevent nonprofit institutions from taking too great an advantage of the freedom possible under the provisions of the 1954 code. According to the report of the Senate committee on finance, dated July 28, 1958:⁴

"It is understood that certain of these organizations are paying selected employees all, or nearly all, of their compensation in the form of annuities. Usually, these are part-time employees of the organization who derive their principal income from other employment, and desire to be compensated by the organization in the form of an annuity rather than money, as a means of deferring income taxes on funds they, in any case, intend to save. Your committee agrees with the House that these organizations should not be permitted to trade upon this tax deferment privilege for their employees."

The 1958 amendment establishes an "Exclusion Allowance" within which annuity premiums paid by a nonprofit organization are not taxed as current income to their employees. In general this "Exclusion Allowance" is computed as 20 per cent of the employee's current compensation, multiplied by his years of service, less any past employer contributions that have not been reported as taxable income of the employee.

A careful analysis of the amendment will reveal the fact that a college, by abandoning its uniform percentage basis for its retirement annuity contributions, can make much more generous provision for its older employees. However, we should remind ourselves that any scheme, having mere tax avoidance as its primary purpose, is usually self-defeating in the long run, since an abuse of a privilege calls for corrective measures. ■

¹1958 U.S. Code: Congressional and Administrative News, pp. 6375-79. West Publishing Company, St. Paul.

²Internal Revenue Code of 1954. Para. 22 (b) (2) (13).

³Internal Revenue Code for 1954, Sec. 404 (a) (2).

⁴1958 Code: Congressional and Administrative News, pp. 6832-36. West Publishing Company, St. Paul.



Wrapped around three sides of the University of Wisconsin's Memorial Union are remodeled food service facilities. Loading dock had to be incorporated into building but future plans call for moving the loading area underground.

FOOD SERVICE EFFICIENCY THROUGH REMODELING

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PHYSICAL plant and equipment layouts that were satisfactory 30 years ago or even a few years ago are outdated now. This is true, if for no other reason than the changes in wage rates for employees. If we are to continue to operate successfully in the years ahead, we cannot afford the inefficiencies of many of our old layouts; we cannot afford the luxury of overlooking the labor saving potentialities of new equipment and new layouts.

At the University of Wisconsin Memorial Union, it appeared that by the mid-1960's we would be confronted by the necessity of having completely to rearrange and expand our food service. The reasons were:

1. The growth of residence halls, with fewer students available as potential customers for the Union food service in the next few years, but with greater numbers than ever needing the Union after 1965.

2. The necessity to produce the best possible food with the lowest input of man-hours. New equipment added through the years had made it possible to use the old layout to meet

demands that were three and four times more than normal during the late Forties, but under conditions we were anxious to avoid repeating. Reworking existing equipment could no longer provide the required labor saving and efficiency improvement.

3. The need to renew outworn utilities and to update all the building utilities.

4. The desirability of getting all of the mechanics of the food service behind the scenes.

5. The importance of making the building conform to today's codes.

6. The long-range prediction of student pressures for the 1960's, and the creation of the facility prior to the onset of the enrollment wave.

The core of the remodeling program involved the central production kitchen and the main cafeteria. This central kitchen supplies the following dining rooms, each having distinctive menus: table service dining room, cafeteria, branch cafeteria (located a mile from central kitchen), snackbar, table d'hote meal (but self-service) dining room, catering service, and food serv-

ice for an Adult Education Center a block away.

In considering efficiency through remodeling, all the evidence seemed to point up two facts: (1) It is more economical from the standpoint of construction and equipment costs to get adequate capacity in a central kitchen than it is to establish two kitchens; (2) the overhead in wages as represented by staff for two units is much higher than it is for one slightly larger unit.

At the time a branch cafeteria was established 11 years ago, it was not certain how well remote food production would work; also, even then we had hopes of rebuilding the Union kitchen in the future. For this reason we laid out a full kitchen for the branch cafeteria and installed all utilities to service equipment which we would need if we were to do cooking at the branch cafeteria. The recent construction was the final test of our thesis on centralized food production because it was this branch cafeteria that was to become the central kitchen during a year of remodeling.

(Text Continued on Page 55)



NEW DINING ROOM (left) overlooking the lake and the terrace. In the summer a person can enjoy the air conditioned comfort of the cafeteria or move out onto the terrace for delightful al fresco dining. Tables and chairs (each in three different colors), two colors in textured plastic wall covering, and the uniform recessed down-lights with accent ceiling and wall fixtures all combine to provide an inviting atmosphere.

OLD DINING ROOM (below). Both the serving line and dining area were located in the same room. The window treatment failed to take advantage of the lake outlook and the general beauty of the site.



OLD KITCHEN (left above). Many of the utilities were exposed. The arrangement of the kitchen was inefficient and to handle the increasing food production at reasonable costs required a complete revision.

NEW KITCHEN (left). The area north of the utility wall. Here is centered the steam equipment for vegetable cookery, as well as all food production involving steam-jacketed kettles.

(Continued From Page 53)

By careful scheduling of production and by installing, temporarily, in the branch unit the equipment to be used in the new kitchen, we were able to set up the central kitchen in the branch location with a shut-down of only one day in food service. We were then in a position of supplying, from a remotely located production area, food at the Union for a table service dining room, a cafeteria, a self-service table d'hôte dining room, and as many as two or three distinct menus for our catering service.

There is probably an optimum size for centralized production; above a certain volume the efficiency of the reduction of overhead is offset by the distances that material and cooks must move in order to process it. What that exact size is I do not know. I am convinced, by way of providing some sort of reference point, that it is in excess of from 12,000 to 15,000 meals per day.

Granted the advantage of centralized food production, two basic areas lend themselves to improvement in efficiency: (1) all activity related to the employe and the job he must perform; (2) the activity related to the person being served. These apply, of course, whether one is remodeling or starting from scratch.

Advantage in Remodeling

In remodeling, one has the advantage of designing to known requirements rather than to hypothetical needs. However, it is necessary to design the entire layout around existing vertical stacks for elevator, subveyors and the like.

The flow of food materials in a straight production line is one objective. A corollary of this food flow should be an attempt to create work areas in which the required movement of the person working in the area is minimized. In addition, it should be made unnecessary for persons not working in the area to move into it and interfere with the work process.

The "area" concept of the food preparation is best illustrated by examining the relationship of the various production areas to the point of pickup for the food units served. Since the central kitchen is at least one floor below any of the dining rooms, truckers are required to pick up all foods, hot or cold, for transport to the dining

units themselves. The trucker picking up salad ingredients (bulk ingredients ready for assembly on salad plates in the unit servery) proceeds down the main trucking aisle to the pass-through box for the salad department. It is unnecessary for him to enter the salad department at all.

Similarly, the processing of hot foods proceeds to hot food holding units on the edge of the preparation area so that pickup is accomplished without anyone going into the area of the cooks who are working on hot food preparation.

By installing direct elevator and hoist connections for the trucks and by the removal of food handling from the public corridors, we have improved the ease of food handling, the sanitation of food handling, and, above all, the appearance to the customer. The convenience of hot and cold food storage in the kitchen for pickup by the serving units is as important an improvement as any.

Provides Check List

Let us consider a number of the specifics that can be applied in trying for our goal of improved labor efficiency through remodeling. These suggestions are neither new nor revolutionary but they provide a check list of some of the important elements to bear in mind in a remodeling project.

1. Equipment that was not base-mounted we had wheel-mounted. This included everything from the kitchen hot food holding units to the refrigerator storage racks, there being no fixed position racks in any of the refrigeration facilities.

2. All equipment was fabricated in accordance with National Sanitation Foundation standards with corners coved and free of seams.

3. Selection of equipment and determination of location was the result of extensive analyses of the movements of each cook in preparation of normal menu items. The arrangement used places the equipment most frequently required by a given cook closest to her assigned position.

4. An analysis of years of menus was used in determining the quantity and capacity of the various types of cooking equipment. The quantity of steam cooking equipment is indicative of the kind of quantity production we require for low-cost entrees, such as hamburger and spaghetti, chili, and

macaroni and cheese. The type and quantity of equipment represents the requirements to produce the foods served in the seven distinct dining units served by this kitchen.

A number of our low-cost entree items are casserole dishes, so adequate oven capacity had to be planned convenient to the range cooks. This, combined with meat roasting demands from all units, as well as simultaneous extraordinary demands for large banquets and our desire to use low-temperature meat roasting, resulted in purchase of a considerable quantity of roast ovens.

Specific items of labor saving equipment incorporated into the remodeled facility included such items as: (a) a milk reconstitutor for the cook's milk supply; (b) a portable electric can opener mounted on a table with wheels; (c) garbage grinders; (d) location of mixers, steam-jacketed kettles, and so forth in each area where they are used. Such standard items of labor saving equipment as potato peeler, food chopper, dicer and meat slicers are used wherever applicable.

Refrigerated Meat Shop

A refrigerated meat shop in which all meat is cut and held under refrigeration until required by the cooks is located immediately adjacent to the meat refrigerator and is served by meat rails so that the butchers can move larger pieces or carcasses with relative ease.

The bakeshop refrigerator provides convenient storage for all bakeshop items requiring refrigeration and, in addition, is designed so that cream fillings can be kept under refrigeration until they are served. The cream pies are assembled in the pastry refrigerator and do not come out for exposure to room temperature until time of service.

One variation on the standard labor saving devices has been the extensive application of industrial temperature controls to the roasting processes. We worked out a temperature controller that is used in connection with a thermocouple mounted in a probe. This probe is inserted in a roast, the desired internal temperature set on the instrument, and when the temperature is reached an alarm is sounded indicating to the cook that that particular roast is at the degree of "doneness" desired. In the office of the food pro-



Above: Cafeteria entrance. Sign is electrically operated and indicates which of cafeteria services are open for business. Right: Milk reconstitutor. Concentrated milk developed by the University of Wisconsin is automatically mixed with water by this unit for producing milk for cooking. Below: Checker-cashier arrangement makes it possible to utilize one, two or three checker-cashiers.



duction manager is a 16 point recorder that acts as an "electronic policeman" by recording 16 different temperatures used in the various roasting ovens.

A sizable area of kitchen space has been dedicated to the predishing of food for banquet service. Rather than to open a special servery, involving considerable input of man-hours to clean up after it is used, and in order to make it possible for fewer food people to work over an extended period of time for food dishing, we have a kitchen area that enables the catering staff to dish from portable hot food tables into moisture controlled, hot food cabinets. They are then taken to the dining room where the meal is to be served.

Structural glazed tile has been used for walls and quarry tile for floors throughout the kitchen-dishroom area, including all walls in refrigerators, and this makes sanitation and cleaning relatively simple. Wherever water or grease might make floors slippery, the abrasive type of quarry tile was used as a protection to personnel.

The extensive use of stainless steel both assists and complicates the matter of equipment maintenance. Constant attention to the steel is required to keep it in proper condition. Each employee is assigned the care of a specified piece of the equipment and has a prescribed method of cleaning as well as a frequency schedule.

A mat-controlled, power operated door to the kitchen through which much food trucking must take place has been a unique timesaver and has eliminated the problem of food trucks bumping into the door when going in and out.

Our answer to changes in production demands or the effect of new technology was to make provisions for future installations (both in space and utilities) of such equipment as radar ranges. In addition, utilities are easily available at all points.

In the first year of actual operation, we were able to reduce the kitchen staff 12½ per cent in doing a volume of business that was about 10 per cent greater than during the year prior to remodeling. In addition, our minimum staff for operation was cut about in half; this made it possible for us to stay open during periods that we normally closed because we were unable to operate economically.

(Continued on Page 58)



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Usually the dishroom provides the least flexibility for redesign. We were confronted with vertical shafts extending five floors on three of the four walls of the old dishroom. The area of the old room was about doubled, but the location of these vertical shafts dictated the layout to be used.

No scullery was included in the kitchen because we were anxious to combine all cleaning processes, whether of pots and pans, dishes or silverware. This combination of kitchen scullery and dishwashing operations has been most successful, since it has reduced the overhead represented by two separate departments having to operate 12 or 14 hours a day. A marked improvement in efficiency has been experienced.

The removal of pot and pan washing from the kitchen is a major improvement in noise reduction as well as in kitchen sanitation. Dirty pots and pans contribute a messiness that is best removed from the kitchen. Here in the dishroom we've experienced an improvement in labor economy, as measured in an actual staff reduction of approximately 40 per cent.

Working Conditions Important

Another element affecting efficiency consists of the surroundings in which employees work. Such features as effective sound absorption through properly engineered acoustic tile, effective lighting, air conditioning, and background music combine to make the employee a more effective and efficient member of the production staff. Even though the administrative offices in our building are not air conditioned, such action being prohibited by university ruling, employee restrooms, dishroom and kitchen preparation area, as well as all dining areas, are air conditioned.

The second and an equally important focus of efficiency improvement — the person being served — called for the redesign of the cafeteria service.

The seating area of the old cafeteria was virtually doubled. The old single line was replaced with a new service that provided two cafeteria lines and a snackbar station. Approximately 130 seats in adjacent rooms can be used as overflow from the cafeteria proper at peak service periods or may be used by groups for private meetings.

The cafeteria serving lines are par-

allel, but there is sufficient space between them so that by-passing from section to section and by-passing to the snackbar at the end of one of the two lines are possible. The customer enters the cafeteria at the serving line, gets his food, checks out, proceeds to the seating area, thence to the scraping unit, and finally to the exit without any interference with other lines or without cross-flow traffic at any point. The arrangement of both lines is such that hot and cold food storage units are directly behind the respective units in the serving line. Since the kitchen is on the floor below, it is possible through the use of elevator and a special cart hoist to resupply the serving lines with hot foods and dishes without the customer traffic line being crossed.

Infra-red lamps are incorporated both above the hot food table and above the serving shelf. The infra-red rods are designed to keep the top surface of the food in the hot food table from cooling off, a problem encountered in air conditioned quarters. Over the serving shelf, infra-red units are utilized so that the attendant at the hot food section may dish ahead such items as soup and vegetables, placing them on the serving shelf ready for customer pickup.

Such items as ice cream are pre-dished and placed in cold wells, where the ice cream remains firm but is ready for immediate pickup by the customer. All beverage service is self-service.

The snackbar, too, is designed for maximum self-service. An infra-red unit has been incorporated over a section of counter so that hamburgers and cheeseburgers can be prepared in advance, ready for immediate pickup by the customer during rush periods. A cold well in the snackbar provides a holding area for fruit juices, lemonade and milk shakes. The customer removes the desired item from the cold well. We also utilize self-service on carbonated beverages.

A unique element of the cafeteria design is the scraping unit, which is a totally enclosed room adjacent to the flow of customers as they move toward the cafeteria exit and within the cafeteria dining area itself. This unit consists of two pass-through windows just large enough to permit the customer to put down his 14 by 18 inch tray. The customer places the tray on a moving conveyor belt and, by design, it can

only be placed the correct way. As the tray proceeds into the scraping room, the tray is disassembled into dish buckets used to carry the processed dishes to the central dishroom in the basement.

The conveyor belt on which the customer places his tray comes into the scraping room 15 inches above the workshelf and the dish buckets into which the dishes, glassware and silver are placed. A garbage grinder for processing paper and garbage is incorporated in the workshelf. Each of the two identical lines may utilize from one to five employees, depending upon customer volume. As a dish bucket is filled, it is necessary only to push the filled bucket forward; a second conveyor belt, operating under the one which brings in the customer's tray, moves the dish bucket to a subveyor, where it is automatically loaded to go down to the dishroom.

Serving Lines Isolated

In our installation the parallel serving lines are completely isolated from the dining room so that the customers, while dining, are completely unaware of the serving process. The walls of the serving area themselves are done in harvest brown tones of mosaic tiles. The fronts of the serving counters are formica mahogany.

A translucent panel ceiling is combined with down-lights over the cafeteria lines to give a pleasant over-all lighting effect with a high level of illumination; this highlights actual food display without unpleasant brightness.

In the seating area of the cafeteria, color and texture have been used to create a pleasant contemporary design. Tables of cocoa brown, tan linen, and meadow green and chairs of carnation pink-white, pastel green, and coral are utilized throughout the room. The floor is a beige rubber tile, while walls are in suede brown and antique white plastic grass cloth. The wall separating the serving units from the dining area consists of decorative mosaic tile in harvest tones with bronze accent tiles.

We have incorporated in our facilities a sales desk for carry-out items. There patrons may select everything from caramel rolls to pizza, or they may pick up a previously ordered special item, including hot foods. This looks like a "natural" for increasing total sales volume without increasing overhead or production costs. ■



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are the major cause of aeration and foaming. Fats were commonly thought to be the major cause. As a result of these discoveries two new exclusive products SCORE and EVENT were developed. *Now for the first time* foam and aeration can be eliminated in a mechanical dishwashing machine throughout the entire washing period.

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Organize Student Workers Before They Disorganize You

CLINTON A. WALL, Director of Food Service, Walla Walla College, Walla Walla, Wash.

STUDENT employment is sure to bring real satisfaction to a food service manager who has a desire to help people help themselves.

At Walla Walla College we have been employing about 65 students (three at full time) for the last eight years. Our dormitory enrollment is

about 650 students. In our new building with four times more floor space we plan to employ 50 students and five full-time employees. The full-time employees are the baker, dinner cook, supper cook, a woman to make the dinner salads, and a woman to whom we have given the title of assistant to

the cooks. She helps where the need is greatest, whether it is baking, vegetable or entree cooking, or as student replacement or a substitute in case of illness. Obviously, such a person must be willing to do a dozen different types of work in a day and to work with as many people.

Our building was designed for student employment. The director's office provides good visibility of the kitchen and related areas, making supervision easy. Storerooms, work areas, and cleaning facilities were all put together in a logical way. We plan multiple use of certain areas, equipment and storage units. Employees pass the time clock as they go into the kitchen only after they are ready for work.

The greatest asset in dealing with students is a willingness to cope with their immature thinking, inexperienced abilities, scholastic program, and extracurricular activity.

The college provides annually more than \$325,000 worth of student employment. Of that amount food service provides almost \$40,000. In the last 10 years \$300,000 has been paid in wages to more than 400 students. This means that the average student spending four years in college earned \$3000 by working from 15 to 20 hours a week at 75¢ per hour. This vast amount of labor requires a plan that will utilize students efficiently without encouraging them to neglect their studies and without taking all of management's time.

The department's financial statement month after month and year after year has shown that from 20 to 22 per cent goes for student employment and 2 or 3 per cent for salaried workers. Our desired total labor cost is 25 per cent of total income.

(Continued on Page 62)

Points for Best Use of Students in Food Service

- 1. Have an adequate, well trained staff of full-time workers. A 1 to 5 ratio is ideal, although 1 to 10 is possible. Conduct regular meetings so all understand department policies.**
- 2. Provide a well designed and logically arranged kitchen. Minimize on the number of ways that food preparation can be done.**
- 3. Know your budget. Work within its limitations or have it adjusted. Students fit well into a peak demand. They often benefit financially more than the food service department does.**
- 4. Have an adequate pay rate, using pay increase as incentive for good work. Expect nothing less than the best.**
- 5. Have standards of performance to serve as a yardstick. People like to compare and be compared.**
- 6. Good supervisors are needed. Students need on-the-job training. Job specifications must be available on the job, not hidden away in the manager's mind or in a dead file.**
- 7. Students' ability is unexcelled; develop leadership.**
- 8. Schedule the workers carefully. Field trips and vacations need not upset schedules.**
- 9. Select the right person for the job. Have a good list of applicants; let them know others are waiting for the job.**
- 10. Students are human. Their willingness and performance often is affected by the association of friends both on and off the job. Saying the right word at the right time may make the difference between success and failure in their future.**

Organize your program well before it disorganizes you!



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Here's how: The estimated national average maintenance wage rate is \$1.50 per hour. With a mop, one man can cover 1,000 sq. ft. per hour—so it costs you \$1.50 for labor. With a Clarke-A-matic, one man can average 12,000 sq. ft. per hour. So labor

cost is only *one-twelfth* of the hourly rate—or about 12 cents—to clean the same 1,000 sq. ft. You actually save up to \$1.38 every hour you clean with a Clarke-A-matic.

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In the meantime, write for details about the Clarke-A-matic, just one of many different Clarke Floor Machines all designed and built to give you *clean* floors for dimes instead of dollars.

Illustrated: Battery Powered Clarke-A-matic Floor Maintainer

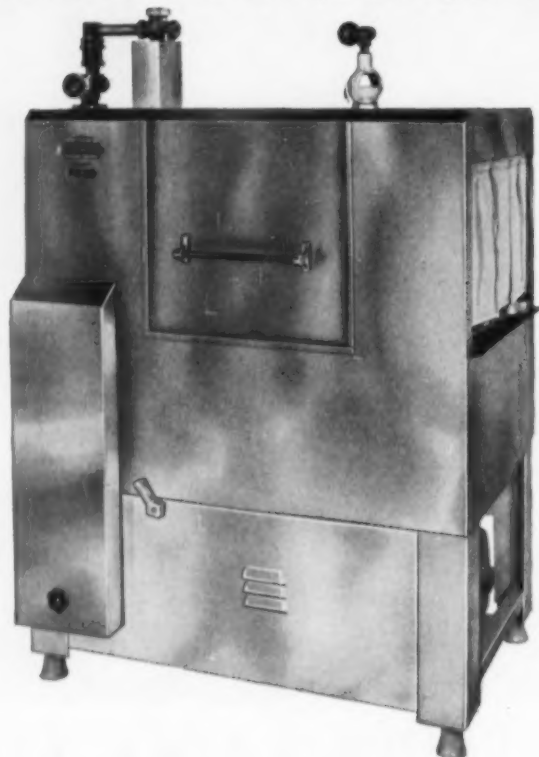


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In the eyes of the students the wage structure is not always ideal. The range of 65c to 90c allows only for a 5c an hour increase each year plus 5c extra for the student leading out in a department. We expect students to earn their increases. This we tell them in our employment policy sheet as well as in employe meetings. Many colleges in the West pay the same rates to all students year after year.

Since we have only a la carte meal service, we do not exchange meals for work. However, students need work only an hour to earn enough to pay for their dinner. The pay range is considerably less than off-campus jobs in our crop-farming community, so we constantly have to point out the value of a steady year-round job on the campus over spasmodic employment miles away. Students sign an agreement during the spring quarter stating that they will work until their last test has been taken or no further employment will be given.

Always many more students are ready for work than we can use; we usually have a list of 150 applicants to choose from. We dislike excess turnover, but we have a simplified program of training workers. During the opening and closing weeks of school, women in the community come in and help until student labor is organized for the new season. Their earnings are applied to their children's or husbands' accounts.

Supervision of students is most interesting. Intelligent people, they are looking for an opportunity to defray school expenses and usually are not too fussy about the type of work required. They are, however, sometimes discouraged by routine that develops into monotony.

Well tested, standardized recipes are a prerequisite for student cooking. When we develop a recipe, it is not good enough unless it can be made by an average student three successive times without failure.

A well worded job specification manual is necessary for success in supervision. Student employes are generally easy to train once they know what is expected of them. Breakfast is prepared and served by an all-student staff. Students work as assistant cooks at other meals and take over on week ends, allowing full-time cooks to work on a Monday to Friday schedule. In summer the baker doubles as dinner cook. All other work is done by 10 students working full time to accrue

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2

YOU CAN SWITCH OVER TO YEAR-ROUND AIR CONDITIONING AT ANY TIME IN THE FUTURE.

3

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HerNel-COOL II units can be installed in your new building now to function as unit ventilators—heating, ventilating and providing fresh-air (outdoor) cooling when required. But the piping, pipe insulation, condensate drainage system and control system installed as a part of the HerNel-COOL II system are *sized and engineered for air conditioning!* And the cost for all this versatile equipment is in the *same range* as equipment *not* adaptable to air conditioning!

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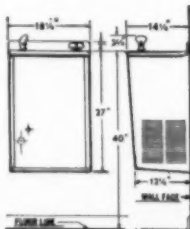


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credit for the coming school year. We find our greatest need to be supervisors with keen minds, qualities of leadership, and an interest in young people and their problems.

In each department, such as serving, vegetable preparation, cooking and dishwashing, an experienced student is identified as leader. He sees that the work is done according to schedule as outlined in the manual.

When working out a schedule at the beginning of the quarter, the full attention of our assistant dietitian is required. She often uses a secretary for several hours verifying class schedules, determining willingness to work, and arranging compatible hours. Workers are assigned to specific duties with specified hours.

Having a reserve of workers available as substitutes is a great boon to morale. All those expecting to leave work temporarily must fill out sub-blanks and have them approved by the supervisor before a campus leave slip will be signed.

Another feature that takes some understanding is class schedules. The food director must be prepared for field days, ball games, and holidays. If he ignores these events, he invites discouragement. The office calendar schedules every event it possibly can before school starts. When a work and a school schedule conflict, we streamline the menus and prepare ahead. A letter is sent to employees stating that work has been made as light as possible but that they are expected to meet their schedules as usual.

Each spring we entertain 500 visiting high school seniors for seven meals. Last spring our total payroll time was increased less than 5 per cent by this added service because we had students prepare ahead a little each day.

In selecting the right student for the job no magic formula can be applied. It is wise to have an application form that requests pertinent information about class schedules, major field of study, age and past experience. At Walla Walla College we do not take a student from another department unless he has a signed release from the manager of that department. Of course, we always inquire of his past performance. If he has been dismissed, we rarely hire him. Sometimes the younger ones learn the hard way and succeed when given a second chance. Grading students periodically encourages better work and aids in development of ideal habits. ■



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sponsibility Medart assumes at the planning and specification stage to guarantee a true "Tailored-To-The-Job" installation—rugged, durable and rigid. Medart analyzes structural conditions, helps choose the exactly-RIGHT backstop, then follows through to assure faultless erection and completely satisfactory operation.

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NEWS

**Campus Safety Conference April 27-29 . . . A.H.E. Stresses Need for More
International Understanding . . . Contributions to Philanthropy Top Rate of
Personal Income Rise . . . New Study Reveals Trends in College Financing**

Conference on Campus Safety April 27-29

EAST LANSING, MICH. — The controversial subject of who should be responsible for a college's safety program will be a main topic at the sixth National Conference on Campus Safety, to be held April 27 to 29 at Michigan State University.

Co-sponsored by the university and by the National Safety Council's campus safety association, the conference is expected to attract college administrators, teachers, student health service personnel, and safety directors and engineers.

Fire prevention and protection, traffic control, and student disturbances are scheduled for discussion. Student disturbances will be looked at from both administrative and student points of view. Some recommendations will be made for preventing and controlling those disturbances that result in injuries and property damage, according to Daniel P. Webster, staff representative for higher education of the National Safety Council's school and college division.

Other topics to be covered, he said, will include: (1) operation of a poison control center, and the related problems of accidental poisoning and its prevention; (2) lighting and vision, as related to safety in laboratories and other study and work areas; (3) safeguards in handling flammable liquids, and (4) chemical booby traps, including amateur experimentation.

Opposition List to Disclaimer Oath Grows

WASHINGTON, D.C. — Opposition to the disclaimer oath required by the National Defense Education Act has now been expressed by the Association of American Colleges, the National

Council of the American Association of University Professors, the presidents of Yale, Harvard and Princeton, the faculty and administration of Amherst, Bryn Mawr, Haverford, Swarthmore, Reed, Bates, Bowdoin, Colby and Antioch, and the faculty of Sarah Lawrence College, as well as by Secretary Flemming of the Department of Health, Education and Welfare, Sen. John Kennedy (D.-Mass.) and others.

Several colleges have refused to accept government funds until the disclaimer oath has been removed. The main objections stated by those opposing the oath are that it involves political control of education by the federal government, is a breach of academic freedom, and is useless as a means of protecting national security.

Rochester Increases Tuition \$150 a Year

ROCHESTER, N.Y. — Steadily increasing costs have made it necessary to increase tuition at the University of Rochester \$150 a year beginning in September, it has been announced.

The increase, bringing the tuition to \$1150 a year, will affect both undergraduate and graduate students of the colleges of arts and science, education, and engineering, and the school of business administration. There will also be a pro-rata raise in evening session fees on the River Campus.

"The board is aware of the fact that a tuition increase may impose a hardship on the parents of some of the university's present students, but through scholarship aid, loans, work opportunities, and budgeting of tuition payments, or through a combination of any of these, the university will attempt to meet the urgent needs of students requiring financial assistance as a result of the increase," the executive committee said.

Kentucky Institute Speakers Announced

LEXINGTON, KY. — The seventh annual College Business Management Institute sponsored by the University of Kentucky will be held the week of July 20 to 25, announces Frank Peterson, vice president of business administration at Kentucky.

The principal subjects covered will be administrative organization, basic college management, budget preparation and control, institutional accounting and reporting, purchasing, operation and maintenance of buildings and grounds, nonacademic personnel problems, food service, bookstore operations, insurance problems, plant expansion, public relations, and current national problems in education.

Lecturers will include Dr. Lloyd Morey, president emeritus and former comptroller, University of Illinois; George F. Baughman, vice president and treasurer, New York University; Clarence Scheps, vice president and controller, Tulane University; Francis C. Pray, vice president, college relations, Council for Financial Aid to Education, Inc., New York.

Kentucky staff members participating will be President Frank G. Dickey; the dean of men, Dr. Leslie L. Martin; Dean W. L. Matthews Jr. of the law college; Dean C. C. Carpenter of the college of commerce, and others.

Power Jones of the University of Kentucky is coordinator of the institute.

No Riot at Ohio State, Officials Tell "Post"

COLUMBUS, OHIO. — No riot occurred at Ohio State University last year, university officials assert, following the account of an alleged riot involving 3000 students and the local

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police in the March 4 issue of the *Saturday Evening Post*. Jerome Ellison's article called "Are We Making a Playground Out of College?" said that 28 Ohio State students were jailed on a variety of charges after the police broke up a riot with tear gas.

Pledge Estate for Scholarship Fund

UNIVERSITY PARK, PA. — An alumnus-trustee and his wife have pledged the residue of their joint estate to a program designed eventually to pro-

duce a scholarship fund for needy and worthy students of Pennsylvania State University.

The alumnus requested anonymity when he and his wife signed agreements designating the university as "residual legatee" of the estate.

Vice President McKay Donkin placed no value on the estate but said the annual yield would support more than one scholarship. "The trustee," he explained, "worked his way through college many years ago and recognizes that today it is even more difficult for the needy youngster to go through col-

lege without financial help. He wants his scholarships to provide for everything except clothing and pocket money. He'd like the boy or girl to work for these."

Announce Results of Survey on Alumni Support

WASHINGTON, D.C. — Alumni giving to American higher education climbed 29 per cent in 1957-58, according to the American Alumni Council's 21st annual survey.

A record \$129,442,980 in gifts from graduates and former students was reported by 478 universities and colleges in the United States. Included also in the survey were alumni giving totals of \$12,415,574 for 120 independent secondary schools and \$1,253,659 for 12 Canadian universities. Total giving by alumni to all 610 reporting institutions in the 1957-58 survey thus reached a record \$143,112,213.

Of the total contributed by alumni, \$38,799,845 was channeled through the annual alumni funds as "living endowment." Bequests, capital gifts, and other support given directly to the institutions accounted for the larger share of the total.

The size of gift dropped from \$35.60 to \$32.03, but significant gains were reported in the number of contributors (from 1,016,484 to 1,211,395) and in the percentage of alumni responding to the appeals (from 20.5 to 22.5 per cent).

Total gift support of all types from all sources reported by the 610 institutions participating in the American Alumni Council's survey reached \$558,950,943. Contributions from alumni represented 25.6 per cent of the total.

Wilson Shares Cost of Medical Insurance

CHAMBERSBURG, PA. — To provide greater economic security for members of its faculty and staff in the event of long-term illness, Wilson College this month began sharing the cost of premiums for major medical insurance that provides benefits up to \$15,000 per policy.

The voluntary insurance program through the Teachers Insurance and Annuity Association also makes provision for coverage of staff dependents. More than 75 per cent of all Wilson College employees are enrolled in the program.



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New Study by C.F.A.E. Reveals Trends in College Financing

NEW YORK. — Private philanthropy and the colleges' income from tuition, fees and other sources have passed government appropriations in meeting the rising costs of higher education, according to a newly published study of the Council for Financial Aid to Education.

Entitled "Where's the Money Coming From?" the study is based on interpretations of data compiled by the U.S. Office of Education through 1955-56 and projected by the council for the college year 1957-58.

In 1943-44, the report shows, state, local and federal appropriations amounted to 59 per cent of the income of U.S. colleges and universities for educational and general purposes. In 1957-58, according to the council's estimates, private philanthropy and institutional income yielded 51 per cent of the operating budget of the more than 1900 colleges and universities, and tax funds, 49 per cent.

"Where's the Money Coming From?" grew out of an effort to weigh

the possibility of the colleges' receiving by 1970 a total yearly income of \$9 billion for all purposes. Various organizations, both governmental and private, have estimated that the doubled enrollment expected by that time would call for a \$9 billion annual investment in the nation's colleges and universities. Barring a major war or depression, the council's study indicates this goal is attainable.

Currently, the council's study shows, the nation's financial investment in its colleges and universities is increasing at the rate of approximately \$400 million a year.

The study and projections were made by Dr. John A. Pollard, vice president in charge of the council's research program.

Voluntary Gifts Double

During the last 15 years, voluntary gifts and grants have been the fastest growing single source of support for American higher education. Their rate virtually doubled, going from 5.8 per

cent of income for educational and general purposes during 1943-44 to 11.5 per cent in 1957-58. In absolute figures, voluntary support for current operations expanded more than seven times, while support from governments for current operations declined by 10 per cent.

Using U.S. Office of Education statistics up to 1956, the last year for which they have been compiled, the Council for Financial Aid to Education projected figures for the academic year 1957-58, which reveal the shifts in the portions of the current operating budget coming from the several sources:

	1943-44	1957-58
Tuitions and fees	\$154,485,000 (17.9%)	\$ 904,328,867 (25.3%)
Support from gov.	\$509,780,000 (59%)	\$1,751,703,096 (48.9%)
Vol. gifts and grants	\$ 50,449,000 (5.8%)	\$ 411,012,934 (11.5%)
Endowment earnings	\$ 75,196,000 (8.7%)	\$ 166,632,125 (4.6%)
Other sources	\$ 73,744,000 (8.6%)	\$ 346,053,543 (9.7%)

During the 15 year period studied by the council, private gifts and grants for educational and general purposes increased by 715 per cent, nearly 10 (Continued on Page 72)

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"All-American" full length lockers are installed back to back in Birmingham Public High School.



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Combinations of full length and half length "All-American" lockers used in the Moorhead State Teachers College.

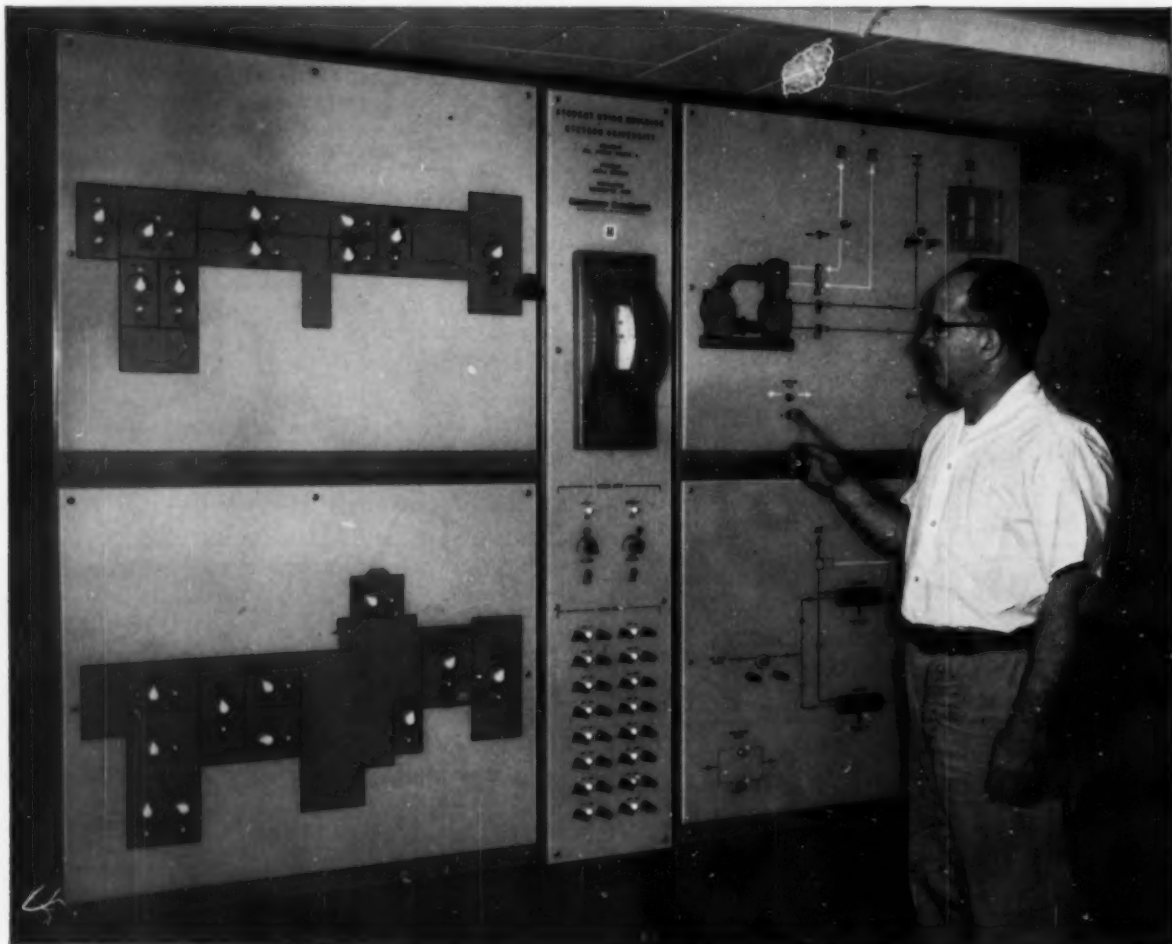


Kingsbury, California
Full length "All-American" lockers recently installed in the locker room of Kingsbury High School.



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The Stetson Student Union building is divided into 17 heating and cooling zones. The Honeywell control center provides complete supervision and control of the space temperatures in these areas.

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(Continued From Page 69)
times the increase in the federal government's investment. State governments had the second highest increase, 520 per cent. Income from tuition and fees increased by 485 per cent and appropriations from local governments by 394 per cent. During the 15 years, appropriations from the federal government for educational and general purposes went up by 73.6 per cent, the least growth for any of the sources.

"Where's the Money Coming From?" showed that the colleges and universities had an estimated \$3,579,-

731,000 income for educational and general purposes during 1957-58. Adding funds received for endowment and for plant and equipment, the colleges' total income for all purposes was estimated at \$4,139,083,000.

Dr. Pollard points out that college endowments are built up almost alone by private gifts. These probably have accounted for most of the half billion estimated increase in total endowments between 1956 and 1958. In addition, voluntary gifts for plant expansion during 1957-58 were estimated at more than \$169 million.

House Bill Steps Up Funds for Housing Loans

WASHINGTON, D.C. — Debate on a new housing bill (H.R. 2357) was expected to begin in March, provided it was not blocked by the rules committee, as was last year's housing bill. The American Council on Education seemed hopeful that it would reach the House floor.

The House is expected to approve the bill and it will then go to conference with the Senate. The House bill contains no provision for academic facilities as does S. 57, which was passed by the Senate in early February. The Senate version contains \$125 million for loans for academic facilities along with \$250 million for college housing loans and \$37.5 million for dining halls, student centers, and infirmaries.

The House measure would increase the revolving fund for college housing loans by \$400 million, reserving \$40 million of this increase for "other educational facilities," such as cafeterias and student centers. It also increases the reservation for student-nurse and intern housing facilities.

A section of the House bill makes eligible for college housing loans non-profit cooperative corporations established for the sole purpose of student housing. The college would be required to co-sign the note and would take title if the coop corporation should be dissolved.

Gifts to Notre Dame in 1958 Total \$3 Million

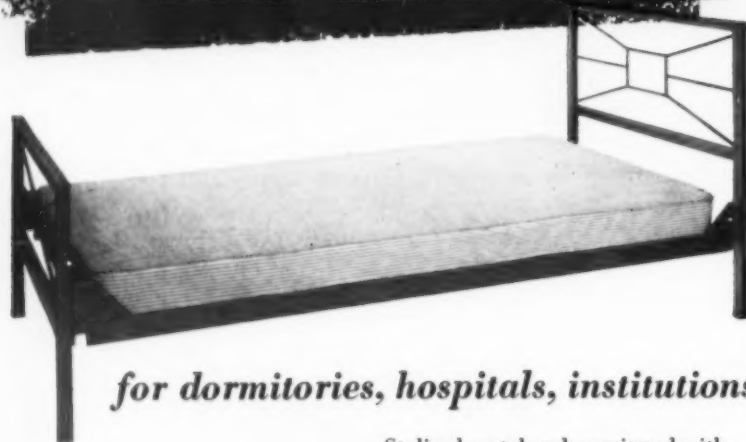
NOTRE DAME, IND. — The University of Notre Dame received a total of \$3,020,052 in gifts and grants during 1958, reported Rev. John J. Cavanaugh, C.S.C., director of the Notre Dame Foundation.

Father Cavanaugh said last year's contributions were the largest in the 12 year history of the foundation except for 1956 and 1957, when Notre Dame received installments of a \$3,074,500 Ford Foundation grant.

According to the year-end report, gifts totaling \$721,180 were earmarked for faculty development. The university has projected a goal of \$27 million in endowment to increase faculty salaries as part of its 10 year, \$66.6 million development program started a year ago. By 1967 Notre Dame also hopes to acquire \$18.6 million for new buildings, \$11 million for

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research, and \$5 million each for student aid and special administrative purposes.

The over-all 1958 total, Father Cavanaugh said, includes \$695,620 from Notre Dame alumni, \$1,323,384 from nonalumni sources including 453 corporations and foundations, and \$992,987 in research grants and fellowships exclusive of corporation supported research.

Alumni, numbering 11,677, contributed an average of \$59.57 during 1958, an \$11 increase over the previous year. The contributions repre-

sented 45.8 per cent of the school's lay graduates.

Columbia Announces Big Curriculum Change

NEW YORK. — A far-reaching curriculum change at the Columbia University Graduate School of Business will go into effect next fall, Dean Courtney C. Brown announced last month.

The new courses, which will require students to study ethical and philosophical aspects of business as well as

standard business subjects, grew out of the faculty's recognition that "a comprehensive education program was needed to keep pace with modern business practices and to produce balanced and effective members of the business community."

Other changes in the school's program, Dean Brown said, include a revised summer term that will allow those students who may wish to do so to complete a full semester's work toward the two-year master of business administration degree. The school has discontinued the evening program and the one-year master of science degree.

"Graduate study of business today," Dean Brown said, "must not only include traditional business courses but also must draw discriminately from the disciplines of many of the natural sciences and of all the related social sciences if it is to make its maximum contribution."

"It must include the study of improved ways of making expeditious, imaginative and effective group decisions. It must enlist the mathematician's skills to facilitate stable production and inventory control. It must help to provide the means of nurturing individuality and creativity in an organizational setting. And it must additionally be rooted in those branches of philosophy called ethics and politics."

Lehigh Increases Pension Payments

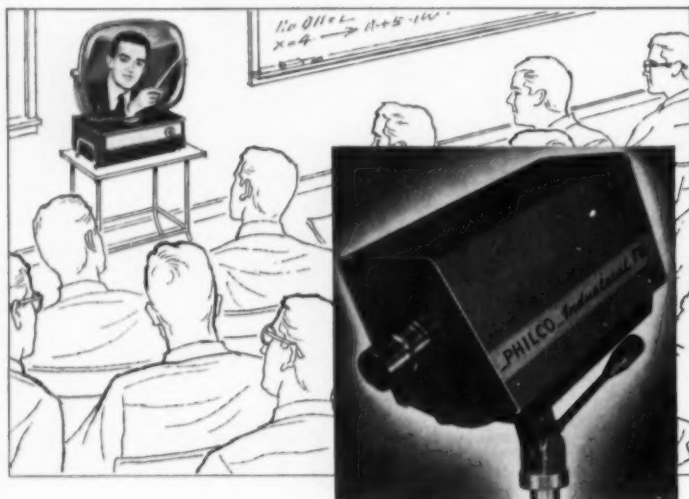
BETHLEHEM, Pa. — Lehigh University, effective July 1, is going to make all payments due the Teachers Insurance and Annuity Association through the university's retirement plan.

This action, President Martin D. Whitaker said, will add an estimated \$80,000 to Lehigh's annual pension payments.

The present matching plan is financed through an annuity policy purchased from T.I.A.A. with the university and the participant making monthly payments on a percentage basis depending on the age of the employee, the university contributing 2 per cent more than the participant.

Since July 1, 1948, all eligible staff members have participated after they have completed one year of service and have attained age 30. A participant may make additional payments to T.I.A.A. in accordance with the terms of the policy and the association's regulations to increase his total annuity. Additional payments will not

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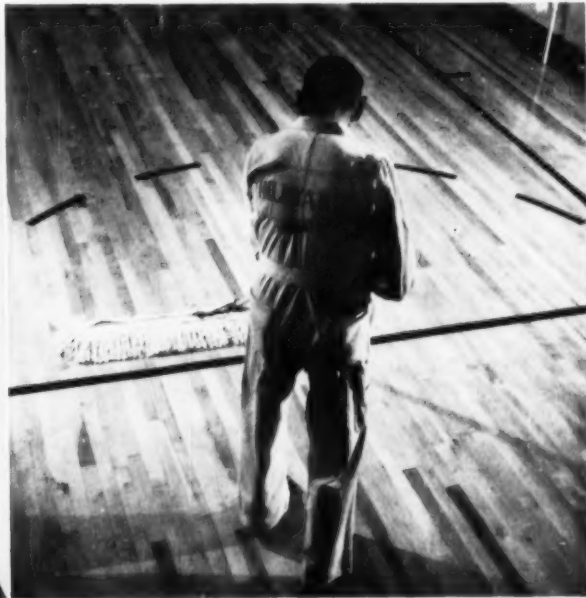
Floor oils leave a 100% residue that penetrates to create a dangerous fire hazard. Super Hil-Tone is non-oily. — After sweeping only a 20% protective residue is left to condition and protect the surface — keeps finishes from drying out and becoming brittle. A Super Hil-Tone wear resistant film strengthens the finish and enhances it with a deep, lustrous sheen.

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Aid to Barnard Students Reaches All-Time High

NEW YORK. — The total amount of scholarship money awarded to Barnard College students both from the college and from outside sources is approximately \$350,000 for the 1958-59

academic year, according to Helen P. Bailey, dean of studies and chairman of the Barnard scholarship and loan committee. This represents an increase of more than \$25,000 over last year's total, and is the largest amount of scholarship aid to students on record at the college.

This year Barnard College awarded \$151,766 in scholarships to 262 students. The sum is an increase of \$40,600 over last year's total, and 41 more students received awards from Barnard than last year. The average award for the 1958-59 academic year came

to \$579, or \$75 more than the average award for the year 1957-58.

The two largest awards made by Barnard went to foreign students. Outside sources of financial aid received by Barnard students include corporations, foundations, alumnae clubs, school groups, the National Merit Scholarships, and the New York State Regents Scholarships.

Hofstra Raises Faculty Salaries

HEMPSTEAD, N.Y. — An across-the-board increase of from \$400 to \$500 in the minimum salary scale for full-time faculty, placing it among the highest for similar colleges in the nation, was the highlight of a seven-point wage program announced for Hofstra College by President John Cranford Adams.

The trustees' plan goes into effect concurrently with a recently announced tuition increase. The minimum base scale will be \$8500 for professors, \$6500 for associate professors, \$5500 for assistant professors, \$4500 for instructors, and \$4200 for lecturers.

Dr. Adams points out that the minimum scale "is simply a beginning standard at the rank for the normal work load for two academic semesters," or approximately nine months. The majority of full-time faculty members at Hofstra have a base pay figure above the minimums announced, having received additional sums either as a part of initial contracts or through past pay increases in recognition of merit performance. In order to maintain differentials between ranks and the level of pay above the minimums, the trustees voted salary increases, effective March 1, of from \$400 to \$500 for all faculty presently on campus who have been with the college a year.

Since the March 1 increase, the average Hofstra professor receives a nine-month income of more than \$9,500.

Other points in the total wage adjustment program include a system of automatic increments for junior ranks; a continuation of merit increases for faculty on tenure; additional funds for faculty research, travel and leaves of absence with pay; a study of increased pay for summer session teaching beyond the current year, and a bonus plan for full-time faculty, administration and staff members to be paid upon retirement from the institution.

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Philanthropy's Assets Hit \$45 Billion

NEW YORK. — Assets of gift supported institutions increased more than \$2 billion in 1958 and contributions to American philanthropy increased 5.97 per cent, according to the American Association of Fund Raising Counsel, Inc.

The rise in contributions exceeded — for the first time in recent years — the gain in personal income, to bring total American philanthropy to a new high of approximately \$7.1 billion.

Total assets in investment and property of philanthropic institutions have increased by some \$12 billion in the last decade and are estimated to exceed \$45 billion. World assets of such institutions are estimated at \$240 billion.

American holdings break down as follows:

Higher education is estimated to have had property and endowment in excess of \$14 billion in 1958. Physical facilities alone were increased by \$560 million in 1958.

Religious construction approximated \$865 million in 1958, and total religious property and endowment is estimated as close to \$14 billion.

Private hospital construction in 1958 was more than 20 per cent above the previous year and approximated \$600 million. Nonprofit hospital plant and endowment is estimated at \$7 billion.

Welfare, recreational, character-building agencies, and other privately supported services for the common welfare have property and endowment valued in excess of \$2.5 billion.

Foundations created for philanthropic giving have assets conservatively estimated at between \$7 and \$8 billion.

In 1958, 41 million volunteers gave time and talent to common causes.

Harold Barkan, in a study made for the American Association of Fund Raising Counsel, forecasts the upswing in American giving as a continuing trend, which by 1975 will reach a total of some \$14.6 billion.

Penn State Press To Give Book Manuscript Award

UNIVERSITY PARK, PA. — Pennsylvania State University Press, beginning in 1960, will present the Louis H. Bell Memorial Award to the member of the teaching or research staff of the

university who submitted the best book manuscript during the preceding year.

The recipient will receive an appropriate citation, a cash prize of \$1000, and all royalties accruing from publication of the book.

Mr. Bell, in whose memory the award was created, had served the university for 24 years. He became executive director of the Press when it was founded in 1955.

Mutual Life Boosts Contribution to Colleges

SPRINGFIELD, MASS. — An increased 1959 grant to the colleges of the nation was announced by the Massachusetts Mutual Life Insurance Co. President Leland J. Kalmbach said the company has made a cash gift of \$35,000 to Independent College Funds of America, Inc., which will distribute the company's donation to members of the Association of American Colleges. The contribution is \$5000 larger than that made for the previous year, Mr. Kalmbach added.

The Massachusetts Mutual's gift is disbursed by Independent College Funds of America on the basis of a formula which provides generally for distribution according to enrollment among nontax supported colleges that are members of the Association of American Colleges and grant degrees after a four-year course of study.

Independent College Funds of America, Inc., is a new national office established to encourage closer rapport between industry and education. Independent College Funds coordinates and represents 40 state and regional associations and their nearly 500 private colleges.

\$2 Million Anonymous Gift to Harvard College

CAMBRIDGE, MASS.—President Nathan M. Pusey of Harvard University recently announced an anonymous gift of \$2 million to Harvard College for use as a scholarship endowment fund.

Dr. Pusey said that the unidentified donor had depended on scholarship aid through most of his years at college and considered the gift "only a partial payment on the value of those years to him."

The gift brought commitments to the program for Harvard College to \$55 million. The goal is \$82 million by commencement on June 11.



Compact Dishwasher

Here is a compact, completely timed-controlled dishwasher priced well within the average small kitchen budget. A popular straight-line, counter-top or under-counter machine, the Hobart Model SM-6T2 automatically controls wash, dwell and rinse operations—eliminating the human element that often accounts for poor results, and the cost of supervision. Compact and simple to operate, single control sets timed operation. "On-off" pilot light indicates machine operation. Another important feature: manual rinse for glasses always available.

Whatever your dishwashing requirements and kitchen layout, you'll find that one of the more than 50 Hobart models is specifically designed to give you compact efficiency and highest standards of sanitation—with more *real savings*. See your nearby Hobart dealer or write The Hobart Manufacturing Co., Dept. 301, Troy, Ohio.

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Pomona's Tuition and Board Charges Hiked

CLAREMONT, CALIF. — Tuition at Pomona College will be increased by \$100 and room and board charges by \$50 beginning next fall, according to an announcement by President E. Wilson Lyon. This will make the 1959-60 rates \$1100 for tuition and \$875 for board and room.

"Pomona College is expanding its educational facilities without increasing its enrollment," Dr. Lyon said. "The development of our academic

program and the growth of the college plant will produce significantly increased costs for 1959-60."

Major items of increase, he said, will be faculty and staff salaries, the library, operation of three new academic buildings and a new women's residence hall, and increased costs in operating the other residence halls and dining halls.

Scholarships for new and returning students will be adjusted according to individual needs. Additional scholarship funds will be available for the coming year, he said.

More International Understanding Is Great Need in Education

CHICAGO. — The 14th National Conference on Higher Education held here March 1 to 4 was the largest meeting in association history with 1100 college presidents, deans and professors in attendance.

In a major address, Sen. Hubert Humphrey (D-Minn.) proposed the idea of an international educational development fund.

The \$3 billion, 10 year program would cost American taxpayers nothing, the senator said. Most of the funds could come from money already owed the United States by foreign countries and tied up in those lands. Inflation is already beginning to wipe out this money, most of which is not now being used, he declared.

Another proposal (and one of the most unusual ones) designed to bring about greater international understanding was that for a top quality bachelor's degree a student should spend at least one school year abroad. This was put forth by Dean Harlan Cleveland of the Maxwell Graduate School of Citizenship and Public Affairs at Syracuse University.

The final speaker at the conference, Economist John Kenneth Galbraith of Harvard University, called education one of the most practical financial investments. "Neither timidity nor an academic inferiority complex should constrain the case for an increasing allocation of resources to schools. Those who say it cannot be afforded are not only wrong but must be protected from the consequences of their own error."

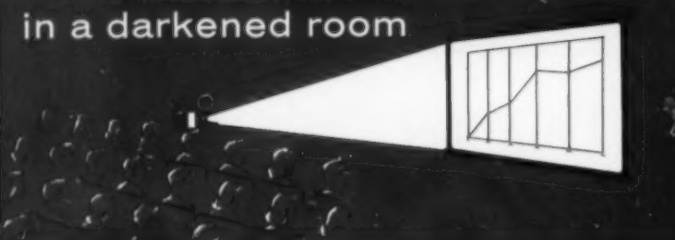
The conference resolved to oppose "the requirement of an affidavit disclaiming belief or membership in subversive organizations" for students qualifying for financial aid under the new National Defense Education Act.

Delegates struck out, however, a proposed resolution to oppose loyalty oaths for students involved in the National Defense Education Act.


The conference also called for the equality of opportunity in educational institutions and "urged that leaders in higher education do all in their power at the local, state and national levels" to help bring this about.

"Since we believe that the public schools are a bulwark of a democratic nation," one resolution read, "we de-

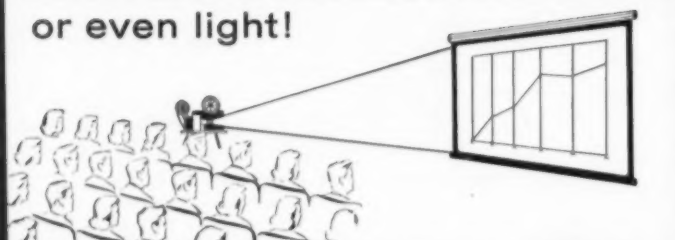
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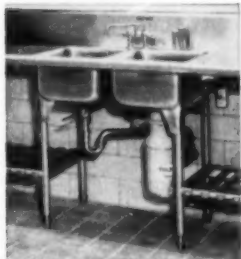
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SEE HOW TOLEDOS STREAMLINE FOOD SERVICE

In the newest addition to the progressive Decatur and Macon County Hospital in Decatur, Illinois, Toledo Kitchen Machines help streamline operations and trim costs! For dishwashing, disposing and peeling, Toledos get the call in this well-planned hospital installation.

Whether your kitchen caters to small or large volume feeding, it's easy to select just the right equipment for your layout and service needs from the wide line of Toledos. Choose Toledo dishwashers for advanced design in counter, door type, conveyor and conveyor prewash machines . . . modern new Toledo food

machines, and fast, sanitary Toledo disposers in a full range of sizes. Write today for new catalogs on Toledos to help you save time, money and manpower in your kitchen.



Nine Toledo Disposers are on the job at key work areas to insure sanitation.



Toledo Conveyor Dishwasher with Prewash keeps dishes and glasses sparkling clean. Automatic through wash and rinse cycles with high hourly production.

Toledo Peeler, with Peel Disposer, provides fast, double-action peeling, and effortless disposal of peelings. Another Toledo Disposer, in corner, serves two sink areas.



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CU 49

plore the closing of public schools as an alternative to complying with the decisions of the courts."

In other action the conference urged that funds be appropriated to carry out the National Defense Education Act, commended the U.S. Senate for acting promptly to increase college housing loans, urged Congress to provide financial assistance for R.O.T.C. programs, encouraged the increased need of federal and state governments, institutions and private citizens to provide scholarships and loans to academically talented students.

President of the association is Russell M. Cooper, assistant dean, college of arts, literature and science, University of Minnesota. New presidential candidates, who will be voted upon by mail ballot, include Harold A. Basilius, director of the Wayne State University Press, Detroit; Charles C. Cole Jr., dean of Lafayette College, Easton, Pa., and James W. Reynolds, professor of junior college education at the University of Texas.

Urge Wider Role for U.S. Women in the Sciences

WASHINGTON, D.C. — "Female brainpower is our most valuable untapped natural resource; the longer we fail to make use of it, the more we are hurting our chances for survival in this space age," warned Betty Lou Raskin, head of plastic research and development, Johns Hopkins University. She was discussing the obstacles that confront women scientists at a meeting of the American Association for the Advancement of Science, here recently.

The Russians graduated more women engineers in one year than this country has done in its entire history, Miss Raskin told.

Arthur S. Flemming, Secretary of Health, Education and Welfare, denounced the "double standard" under which women are not welcome in graduate schools of the science field, saying this is a drawback to the national security and the expanding civilian economy.

Elizabeth A. Wood, crystallographer for Bell Laboratories, Murray Hill, N.J., said that American girls from kindergarten are taught that "mechanical gadgets and scientific things are the province of boys and men, quite beyond girls to understand." This attitude is carried to graduate schools, she added.

CORBIN MASTERDOOR LETTER BOX INSTALLATIONS



For surface mounted installations. CORBIN letter boxes, mounted in Masterdoors, make it possible to sort mail from the front. With Masterdoors wide open mail clerk has easy access to pigeonholes. Each Masterdoor section comes completely assembled, ready for service.



Set flush with the wall. CORBIN letter box designs are attractive, distinctive... harmonize with modern decor of apartment, office and institutional buildings. Solid, rugged construction gives years of trouble-free service.

No. 150 "Imperial" design — key type. This newest CORBIN design features crisp, simple lines as a complement to modern decor. Available in 3 sizes, it can be convenience-keyed so one key opens entrance door, letter box, and interior doors.



No. 185 "Imperial" Double Dial design. Hinges flush-mounted with face of door — finished as required. Available in 3 sizes.



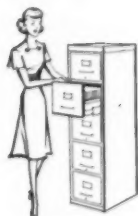
Simple installation, maintenance-free construction, new beauty, and positive post-office security — all make CORBIN Masterdoor Letter Boxes the ideal arrangement in buildings where surface-mounting is required. Write for Catalog WP27.



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ASE furniture is designed for efficiency, too. Makes work a little easier... more pleasant. And, of course, beauty of design and color is apparent. There's a wide choice of colors as well as desk top materials and chair upholstery fabrics.

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Detroit Area Studies Community College Needs

DETROIT. — The need for community colleges in the six-county metropolitan area of Detroit will be studied by a citizens advisory committee under the leadership of Wayne State University here.

The 85 member committee, directed by Gerald W. Boicourt, head of community college service at the university, will prepare reports on the community college situation in the area and make recommendations on how higher education can be made avail-

able to the greatest number of people at the lowest cost.

NAMES IN THE NEWS



Paul E. Rich
of financial aid officer. In his new capacity he will coordinate the schol-

Paul E. Rich, a member of the bursar's staff at Hofstra College, Hempstead, L.I., since 1954, has been named to the new administrative position

arship and student loan program of the college.

Phillip S. Wilder, assistant to the president at Bowdoin College, Brunswick, Maine, has been named to the additional position of director of student aid, effective immediately. In his newly assigned position, Mr. Wilder will have over-all responsibility for the college's program of financial aid to students, which includes scholarships, loans and campus employment.



Mason W. Gross

Mason W. Gross has been named sixteenth president of Rutgers, the State University of New Jersey, New Brunswick. Dr. Gross joined the Rutgers faculty in 1946 as an assistant professor of philosophy. Given the title of vice president in July 1958, he has been serving as the university's chief administrative officer since October 1, when **Dr. Lewis Webster Jones** left to become president of the National Conference of Christians and Jews.

Warren A. Kraetzer, formerly director of New York University's office of radio-television, has been appointed vice president for development of the National Educational Television and Radio Center. His appointment became effective April 1, according to an announcement by **John F. White**, president of the Center.

Bruce Barton, chairman of the board of Batten, Barton, Durstine & Osborn, has accepted chairmanship of the United Negro College Fund's 16th annual spring appeal. The announcement was made by **John D. Rockefeller III**, chairman of the Fund's national council.

Anson B. Campbell, formerly public relations director for a Pittsburgh fund raising organization and while there account executive and counsel for the American Institute of Architects, has been named director of public relations for Carnegie Institute of Technology.

Dr. A. C. Van Dusen, assistant chancellor for planning and development at the University of Pittsburgh, has been named vice chancellor for the university's professional schools. Dr. Van Dusen succeeds **Elvis J. Stahr**, who recently became president of West Virginia University.

(Continued on Page 86)

21 YEARS OF CONTINUING SERVICE TO THE FIELD OF EDUCATION AS SPECIALISTS IN TUITION PAYMENT PROGRAMS

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an answer!

Superintendent Robert Beauchamp (standing) agrees with Bob Rarick that *Crystal Seal-O-San*® provides a tough, non-skid, glare-free surface yet preserves all the natural color and hardwood beauty of the floor.



HUNTINGTON WEATHERALL STAYS BRIGHT, EVEN AFTER WET TRAFFIC AND FREQUENT MOPPING

How do you keep a school floor shiny when water and slush are tramped in? The solution at the new Mackinaw High School, Mackinaw City, Michigan: *Weatherall Wax*—the heavy-duty wax designed to protect flooring against moisture and to stay bright and blemish-free, even under wet traffic conditions and the frequent damp mopping that is necessary.

Weatherall is just part of the simple but complete interior maintenance program installed at the Mackinaw School by the Huntington representative, R. W. Rarick. School officials are pleased because it's already apparent that this program is saving time for the custodians to get other work done. And the exposed surfaces of expensive building materials are getting good protection. Superintendent Beauchamp said, "I was surprised at the difference a few products designed especially for school building maintenance could make. We get better cleaning with less fuss and bother than ever before."

A Huntington representative can tailor a sound maintenance program for you based on varied experience, high quality products and personal skill. The end result can be a considerable saving in time and money. If you have cleaning problems, ask for the help of your Huntington representative. There's no obligation, of course.

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vice in merchant partici-
pation parking.

A. Paul Nestor, purchasing supervisor at the University of Kentucky since 1959, has been named associate business manager of the new medical center there. He will continue to direct purchasing at the university for an additional period of time but will gradually take over full duties as associate business manager.

Ray B. Kiefer, purchasing agent at the University of Akron, Akron, Ohio, has been appointed assistant business manager of Inter American University of Puerto Rico at San German. Don Bowles will succeed him at Akron.

Jacob R. Urchek will occupy the newly created position of director of nonacademic personnel at Kent State University, Kent, Ohio.

Thomas P. Murtagh, formerly business manager-treasurer of Case Institute of Technology, Cleveland, has resigned to become controller for L. K. Comstock Company, New York. Occupying his place is Clifford L. Nelson, who has been given the new title of vice president for finance and business administration.

Rev Charles Prussing will succeed Rev. Joseph Carroll as treasurer-business manager of Loyola University of Los Angeles.

Clarence J. Thompson, formerly personnel representative of E. I. DuPont de Nemours & Company's engineering department, has been named to the post of personnel manager at the University of Delaware, Newark.

W. E. Smith, formerly business manager of William Woods College at Fulton, Mo., resigned recently to become business manager of Monmouth College, Monmouth, Ill. He succeeds Harlan Cain, who recently accepted the position of assistant to the business manager at Northern Illinois University, DeKalb.

Dr. William S. Litterick, presently headmaster of the Harley School, Rochester, N.Y., has been named president of Keuka College, Keuka Park, N.Y., and will assume duties at Keuka in August.

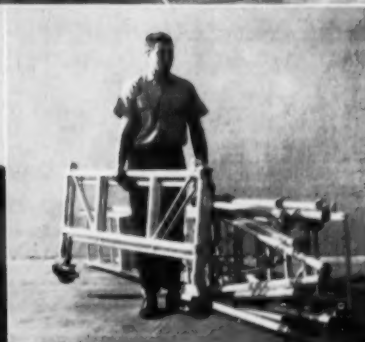
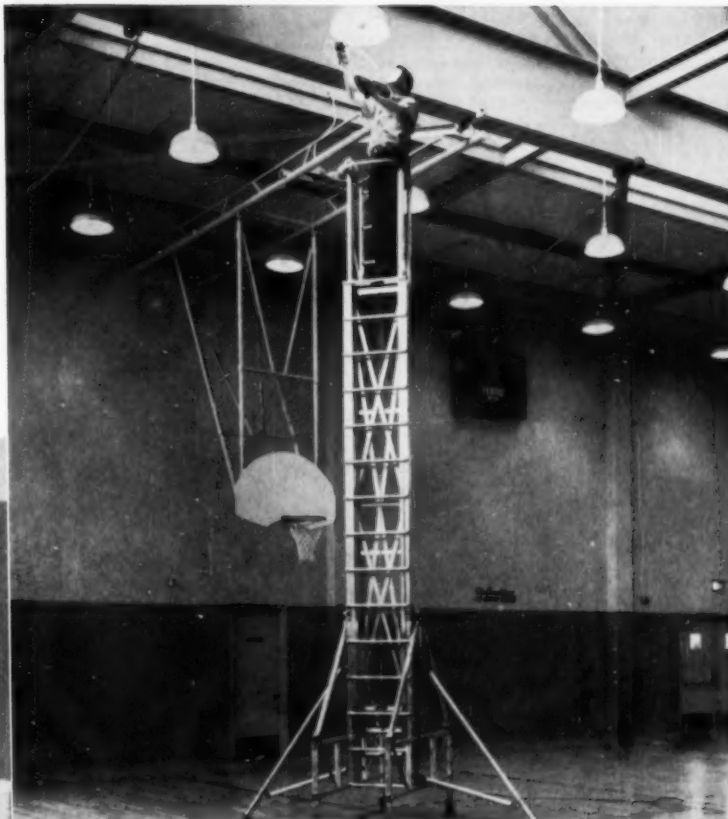
Shirley W. Smith, secretary emeritus of the University of Michigan, died recently of a heart attack. He was 83 years old. A member of the administrative staff at Michigan for 43 years, he retired in June 1945. Mr. Smith was the first president of the Central Association of College and University Business Officers, having been elected to that post in 1912. He was reelected president in 1913 and 1914.

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National Federation of College and University Business Officers Associations

President: C. O. Emmerich, Emory University; secretary: Elmer Jagow, Knox College.

National Federation Consulting Service, 44 Washington Street, Wellesley Hills 81, Mass. Irwin K. French, executive director.

Association of College and University Housing Officers

President: J. Arthur Pringle, University of Washington; secretary-treasurer: Leonard A. Schaad, University of Michigan.

Convention: Aug. 2-5, University of Colorado, Boulder.

National Association of College Stores

President: Helen Amberg, Campus Store, Colgate University, Hamilton, N.Y.; general manager: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

Convention: April 26-30, Hotel New Yorker, New York City.

Association of College Unions

President: J. Wayne Stark, A. & M. College of Texas; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 8-11, Deauville Hotel, Miami Beach, Fla.

National Association of Educational Buyers

President: George W. Warren Jr., Baltimore Department of Education, Baltimore; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Convention: May 11-13, Fontainebleau Hotel, Miami Beach.

National Association of Physical Plant Administrators of Universities and Colleges

President: M. F. Fifield, University of New Mexico; secretary-treasurer: J. D. McFarland, University of Arkansas.

Convention: May 10-13, Kansas State College, Manhattan.

American College Public Relations Association

President: Howard S. Curtis, Brown University; executive director: W. Noel Johnston, 1785 Massachusetts Ave., Washington, D.C.

Convention: July 12-15, French Lick, Ind.

College and University Personnel Association

President: Paul A. Hartley, University of Miami, Coral Gables, Fla.; executive secretary: Donald E. Dickason, University of Illinois, Permanent headquarters, 809 S. Wright St., Champaign, Ill.

Convention: June 28-July 1, University of Virginia, Charlottesville.

American Alumni Council

President: Donald E. Smith, University of Rochester; executive director: Ernest T. Stewart, 1785 Massachusetts Ave., N.W., Washington 6, D.C.

Convention: June 28-July 2, Grand Hotel, Mackinac Island, Mich.

Associations of College and University Business Officers

American Association

President: William M. Jones, North Carolina College; secretary: S. V. Jeter, Clark College, Atlanta, Ga.

Convention: April 23-25, Tuskegee Institute, Tuskegee Institute, Ala.

Central Association

President: Robert W. Hoefer, University of Cincinnati; secretary-treasurer: Ralph Olmsted, Evansville College, Evansville, Ind.

Convention: May 17-19, Purdue University, Lafayette, Ind.

Eastern Association

President: John F. Meck, Dartmouth College; secretary-treasurer: Kurt M. Hertzfeld, University of Rochester.

Convention: Nov. 29-Dec. 1, Boston.

Southern Association

President: G. C. Henriksen, Duke University; secretary: C. O. Emmerich, Emory University.

Convention: April 19-21, Brown Hotel, Louisville, Ky.

Western Association

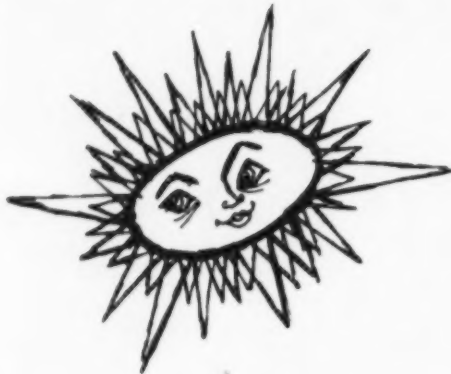
President: Duncan I. McFadden, Stanford University; secretary: Robert B. Gilmore, California Institute of Technology.

Convention: May 3-6, Disneyland Hotel, Anaheim, Calif.

Canadian Association of University Business Officers

President: W. J. Condo, controller, University of Manitoba; secretary-treasurer: D. S. Claringbold, treasurer, Hart House, University of Toronto.

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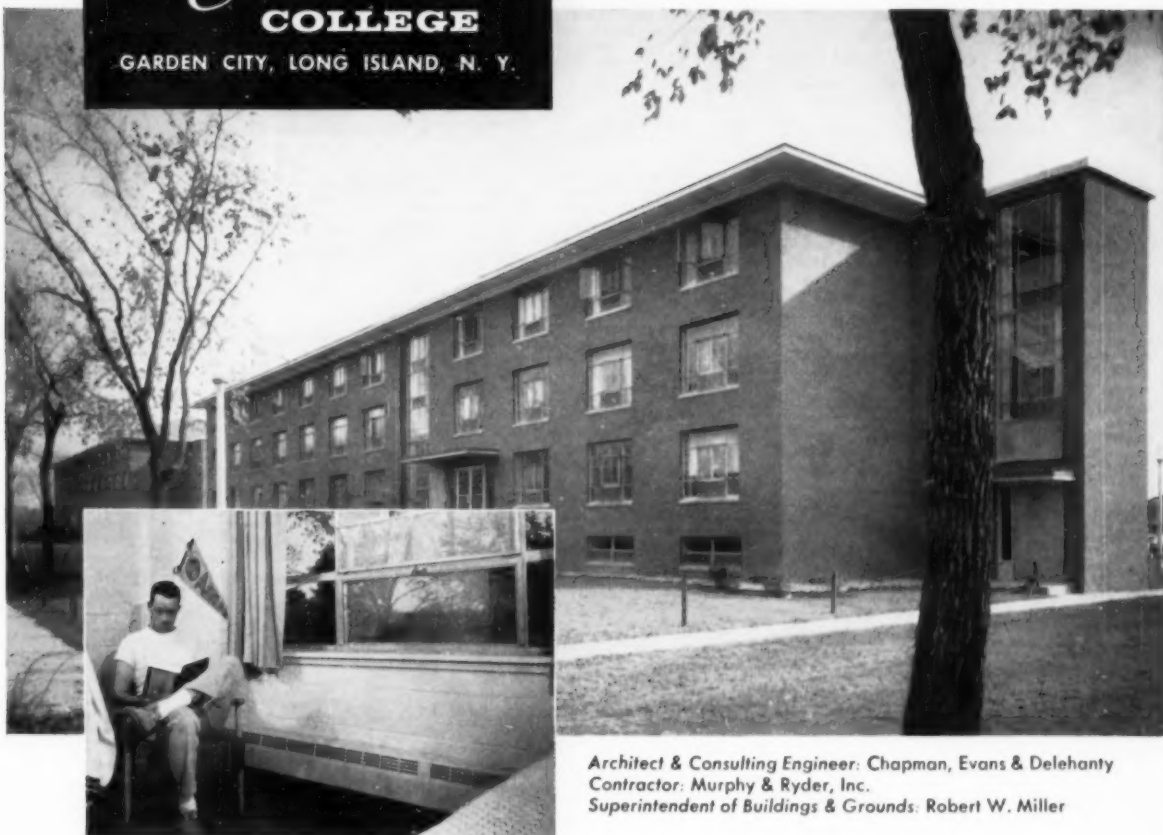
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Adelphi College's building team chose slim styled Dunham-Bush "BFOT" baseboard (and convectors) to provide comfortable warmth for students housed in three new three story dormitories.

"BFOT" offered performance features that suited Adelphi's loop type heating system of two supply risers and two return risers serving each floor.

Low first cost and low installation cost were achieved because all "BFOT" parts snap or fit together. Additional economies were effected in easier painting—no deep air foils to run up costs.

Adelphi College's product selection is indicative of a trend to Dunham-Bush "one source-one responsibility" for all heating and air conditioning needs.

Add Dunham-Bush to your building team. Write for free folder that tells how to cut school heating costs . . . add efficiency.

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Superintendent of Buildings & Grounds: Robert W. Miller

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PHILADELPHIA, PA. • WEST HARTFORD, CONN. • TORONTO, CANADA
DALLAS, TEX. • HARTFORD, CONN. • PORTLAND, ORE. • PORT HURON, MICH.
SEATTLE, WASH. • ST. LOUIS, MO. • ST. PAUL, MINN.

classified advertising

POSITIONS WANTED

Administrator, Non-Academic—Excellent combined background—mechanical and general construction; industrial finance, accounting, budgets, cost control, purchasing; Economics Degree; now V.P., mechanical contracting corporation; 37; interested in all college openings, locations. Write to Box CW 440, COLLEGE AND UNIVERSITY BUSINESS.

Bookstore Manager—47 years old; married; BS in BA, 8 years as educational consultant in auxiliary enterprises; NACS Workshop grad. Write to Box CW 436, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager—Ten years' experience in new building construction, physical plant maintenance and operation, purchasing, budget control, personnel training, administrative duties; excellent references. Write to Box CW 444, COLLEGE AND UNIVERSITY BUSINESS.

Business Manager — Treasurer—Mature executive, experienced as treasurer, comptroller and general manager, desires position as business manager or treasurer of college or university; presently employed in industry; excellent character and professional references. Write to Box CW 461, COLLEGE AND UNIVERSITY BUSINESS.

College Development Director—Presently employed as campaign director in college field with major fund-raising firm; desire relocation and challenging opportunity; thoroughly experienced all phases college development and public relations work; will consider only top level position; married; Master's Degree. Write to Box CW 462, COLLEGE AND UNIVERSITY BUSINESS.

Director of Food Service—Ten years college food service; would like to relocate; available immediately; can furnish complete resumé. Write to Box CW 458, COLLEGE AND UNIVERSITY BUSINESS.

Educator—Broad background in industry and community affairs; interested in post as dean of extension, dean of students, or in general administration; currently dean of students. Write to Box CW 448, COLLEGE AND UNIVERSITY BUSINESS.

Financial Administration Position—Experience with both educational and commercial supervisory and accounting functions; B.S.C. and M.B.A. and teaching experience; desire midwest location. Write for complete resumé to Box CW 463, COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director—Holder of top-level positions in large university and small college; formal food training and varied commercial food experience; possess executive outlook, excellent health, ability to achieve whole-hearted cooperation with own staff members and other departments; believe in constant application of latest scientific methods in food service and personnel management; presently employed but seek professional achievement opportunity; resumé. Write to Box CW 456, COLLEGE AND UNIVERSITY BUSINESS.

Grounds Superintendent (or Assistant with expectation of promotion)—Preferably in Southeastern or Eastern states; experienced, university graduate. Write to Box CW 454, COLLEGE AND UNIVERSITY BUSINESS.

IBM Supervisor—Presently supervisor of college machine unit; all phases of accounting, including general ledger, payroll, student accounting, monthly machine billing, budgets, payables, registration, grade reports, etc.; twelve years IBM experience, good background in systems; desire to establish and supervise IBM system; resumé on request. Write to Box CW 457, COLLEGE AND UNIVERSITY BUSINESS.

Multi-Duty Position—Small college, big challenge; publicity and/or admissions, alumni, athletics; versatile producer, 33, family; employed development major institution. Write to Box CW 455, COLLEGE AND UNIVERSITY BUSINESS.

"Old Hand" at College Business Administration—Well fortified with twenty-six years' experience in responsible positions in three top colleges—now wishes to make final move for last eight years before retirement; adequate reasons for change. Write to Box CW 459, COLLEGE AND UNIVERSITY BUSINESS.

Plant Engineer—College Degree; age 46; fifteen years experience in construction and maintenance engineering with the Corps of Engineers; familiar with liaison work between architects and contractors on new construction; understand all phases of alterations and buildings and grounds maintenance; experienced in university work, particularly in dental, medical and research requirements, including purchasing agent duties and contracting. Write to Box CW 460, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds—Age 41; college training, fifteen years' experience, nine years Director of maintenance, service and construction program of medical school and seventeen hundred bed hospital; available ninety days. Write to Box CW 443, COLLEGE AND UNIVERSITY BUSINESS.

POSITIONS OPEN

Assistant Business Manager—For progressive privately controlled liberal arts college in Pacific Northwest, to supervise accounting, and to assist business manager in all other phases of college business management; to assume full responsibility in absence of business manager; position open June 1, 1959; candidate with some experience in small college preferred. Write to Box CO 290, COLLEGE AND UNIVERSITY BUSINESS, giving qualifications, training, experience and range of starting salary expected.

Business Office—Attractive opening in small widely known, publicly supported college in north midwest. If experienced and interested write to Box CO 300, COLLEGE AND UNIVERSITY BUSINESS.

Chief Accountant—Private college in upper Midwest is seeking man to assume responsibility for accounting function; Baccalaureate Degree and institutional accounting experience preferred; knowledge of machine accounting and systems desirable. Send resumé to Box CO 292, COLLEGE AND UNIVERSITY BUSINESS.

College Food Service Directors—Leading quality-minded college and university contract feeding company has openings for capable, personable, young male graduates as college food service directors; long hours, long vacations, best income, plenty of room

to advance, due to continuing rapid expansion. If you can qualify, and enjoy campus environment, send personal data sheet to Box CO 289, COLLEGE AND UNIVERSITY BUSINESS.

College Union Food Service Supervisors—New Union in Southwest opening fall, 1959, seeking managerial staff; catering, fountain, dining room, cafeteria; excellent salary opportunity dependent upon training, experience and qualifications; late summer availability desired for lead position, later for other openings. Write to Box CO 296, COLLEGE AND UNIVERSITY BUSINESS.

Controller's Assistant—For prominent non-profit membership organization; metropolitan New York area; CPA preferred; Accounting Degree and public accounting experience required; excellent prospects for advancement to top level position; salary open. Write fully to Box CO 287, COLLEGE AND UNIVERSITY BUSINESS.

Dietitian—Position now open, women's college of 500; single dining hall; base salary \$5,000; meals and residence furnished; liberal retirement and health plans; one-month vacation plus holidays. Apply to A. D. Stout, Business Manager, WILSON COLLEGE, Chambersburg, Pa.

Dietitian—Women's college, service for 550; good kitchen and dining facilities; college graduate with experience in food service, man or woman. Send resumé of experience, education, and recent photograph to Mr. H. L. Throop, Comptroller, ELMIRA COLLEGE, Elmira, New York.

Dietitian-Manager—Member of Institution Economics Faculty; manage food service for 900 students, responsible to head dietitian; make menus, order food and supplies, supervise preparation, serving and storage of foods; supervise and schedule employees; maintain food cost control; salary open; sick leave; vacation, group life insurance, social security; good retirement; fringe benefits; also positions open for Assistant Dietitian-Manager. Apply to Director, College Housing and Food Service, Administration Building 11, STATE COLLEGE OF WASHINGTON, Pullman, Washington.

Director of Housing—State university in the Southwest is seeking housing director for dormitories and married students' apartments; person should have experience in housing management and student personnel work; position open July 1, 1959. Resumé to Box CO 293, COLLEGE AND UNIVERSITY BUSINESS.

Director, University Center—Position open at a private, independent university; needed as soon after June 1, 1959, as possible; the building is now in the final planning stages, opening scheduled June 1, 1960; must have past experience in student union field. Send resumé to University Center Committee, UNIVERSITY OF KANSAS CITY, 5100 Rockhill Road, Kansas City, Missouri.

Food Service Supervisor—Man preferred, but would consider qualified woman, under 45, for position in leading college in New York state; serving 5,000 meals daily; experienced in food preparation and supervision of kitchens and dining rooms; formal food service management training or equivalent in experience; open immediately. Send resumé to Box CO 294, COLLEGE AND UNIVERSITY BUSINESS.

(Continued on page 91)

classified advertising

(Continued From Page 90)

POSITIONS OPEN

Grounds Superintendent—For progressive state supported university system; average student enrollment 2500; location: Piedmont section, southeastern state; qualifications: Degree in horticulture, or substitution of satisfactory experience may be considered; knowledge; landscape architecture, surveying instruments, topsoil, propagation and treatment of grass, shrubs, and trees; knowledge of supplies and equipment needed in this area, and work loads; this person will be responsible for the supervision of approximately 23 employees; position available July 1, 1959; salary open. Write to Box CO 298, COLLEGE AND UNIVERSITY BUSINESS.

Housekeeping Superintendent—For progressive state supported university system; average student enrollment 2500; location: Piedmont section, southeastern state; qualifications: five to ten years work experience in similar position; knowledge: time motion study, work loads, chemistry of cleaning, and building maintenance; college graduate preferred; salary open. Write to Box CO 297 COLLEGE AND UNIVERSITY BUSINESS.

Utility or Plant Engineer—For progressive state supported university system; average student enrollment 2500; location: Piedmont section, southeastern state; qualification: Degree in engineering; person shall be responsible for the operation of steam plant, steam fitters shop, electric shop, plumbing shop, and air conditioning and refrigeration; applicant should have a minimum of five years experience in the area mentioned or similar areas; knowledge; knowledge of materials and equipment

for maintenance of the utilities and be able to write specifications for maintenance and additions to the plant; this person will be responsible for the supervision of approximately 20 to 25 employees, and, therefore, must have a knowledge of work loads and be able to assign and carry through work problems; position available July 1, 1959; salary open. Write to Box CO 299, COLLEGE AND UNIVERSITY BUSINESS.

FOR SALE

Junior Photostat—Complete with lens, subject holder, roto print dryer, deep dark box; excellent condition. Write to MOUNT MARY COLLEGE, Milwaukee 10, Wisconsin.

The rates for classified advertisements are: 20 cents a word; minimum charge, \$4. (No charge for "key" number.)

Forms close 5th of month preceding date of issue.

COLLEGE AND UNIVERSITY BUSINESS
919 N. Michigan Avenue, Chicago 11, Ill.



EDGES 80 MILES OF TURF PER DAY!

A park department official recently testified that one "Kurb-Dresser" does the work of 12 men using conventional equipment — freeing these men for other maintenance work. This rugged, tractor-drawn industrial edger can easily slice through a 4" soil build-up, or as deftly trim random grass runners, overlying curbs, sidewalks, highways, driveways, airstrips, etc. — at speeds up to 15 miles per hour.

"Kurb-Dresser" fits any three-point-hitch tractor. Blade automatically holds steady course even if tractor path deviates as much as 16 inches. Either flush-cuts or simultaneously cuts-and-troughs, on dry or wet turf. Operates with or against traffic; from street or turf areas. Non-spinning cutting blade safeguards operator and bystanders against danger from flying debris!

Whether you edge weekly, or "clean-up" only once a year, "Kurb-Dresser" pays for itself again and again. Sold nationally through leading turf-equipment distributors. Full details sent, or demonstration on request.



FREE

DEMONSTRATION,
LITERATURE,
SPECIFICATIONS,
QUOTATIONS

- ☐ Send detailed "Kurb-Dresser" information.
☐ Arrange a convenient demonstration.

_____ is the best time for me.

Name _____

Title _____

Firm _____

Address _____

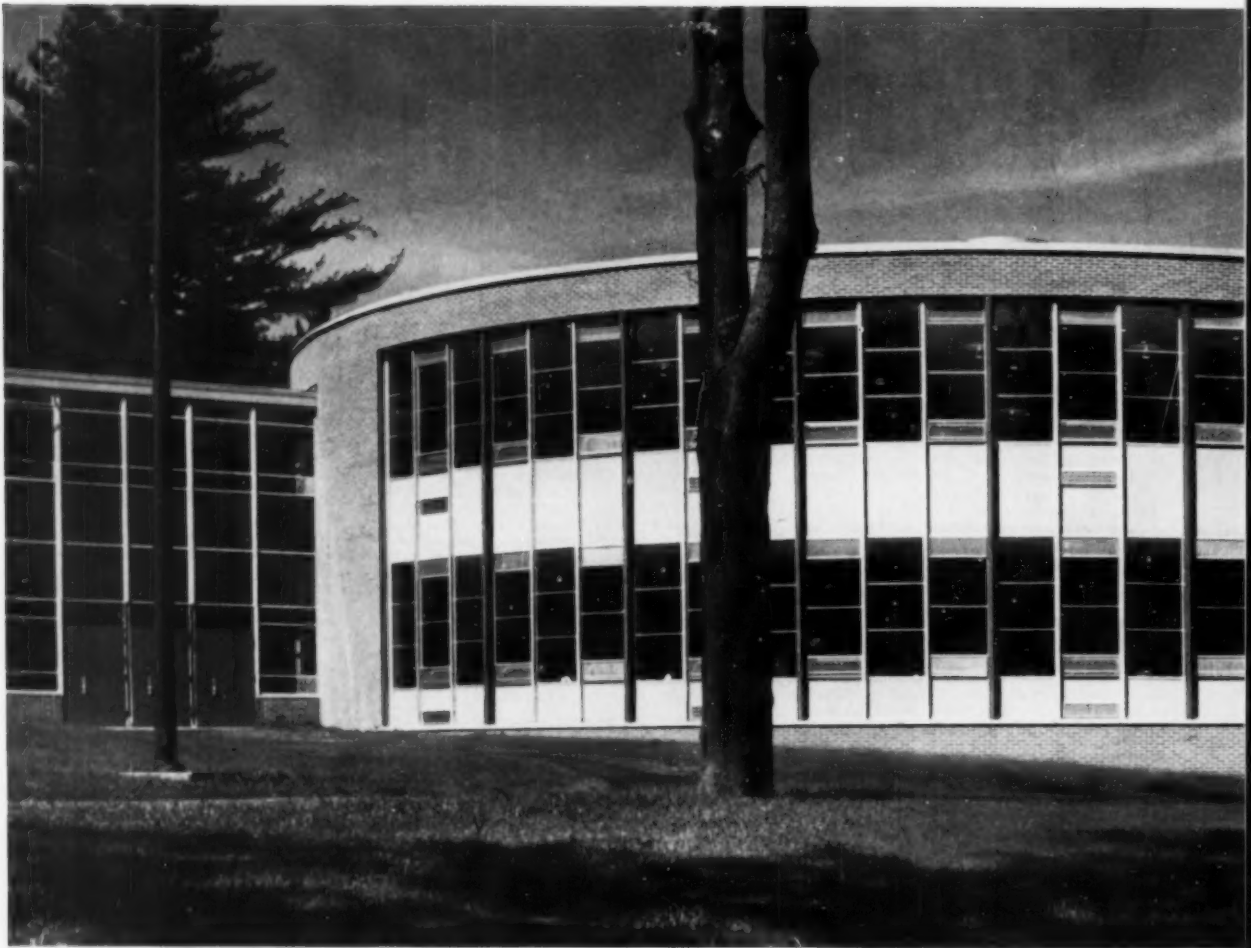
City & State _____



**MANUFACTURING
COMPANY**

©1959

**CLEBURNE
TEXAS**

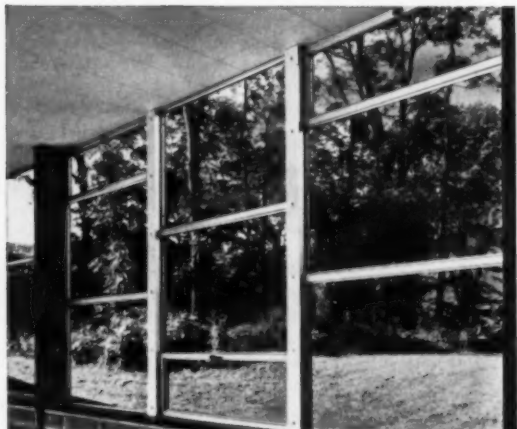


Students and faculty of both schools lunch in this striking circular cafeteria. Every third mullion is of extra deep profile, and gaily colored, as are the spandrel panels, to enhance the bright, cheerful motif.

13-building double school



GREAT NECK, L. I., JUNIOR (foreground) and SENIOR (background) HIGH SCHOOLS. Designed for maximum light, ventilation, and floor space, these buildings were constructed with LUPTON Type "H" Aluminum Curtain Wall and LUPTON Windows. Despite unusual landscape and student problems, continuity of design was achieved. Beauty and economy were combined.



These LUPTON Aluminum "Master" Windows have ventilators located alternately at the top and the bottom. They can't rust, never need painting. The wide range of LUPTON Aluminum Window styles provides unusual planning flexibility and freedom of design.



Architects: LaPierre, Litchfield & Partners (W. Frank Bower, A. I. A.). Contractors: Psaty and Fuhrman, Inc. Photographs: Cortlandt V. D. Hubbard.

wrapped around a hill

unified with LUPTON Aluminum Curtain Walls

In designing Great Neck Junior and Senior High Schools, architects and educational consultants overcame the problems of a hilly, heavily wooded terrain and the varying interests of two pupil age groups. They decided on two entirely different schools on opposite sides of the dominating hill, with the senior high adjoining a new express highway, and the junior high near a moderately traveled road. But still, they were able to sustain a single design theme by using a beautiful LUPTON aluminum curtain-wall system throughout the thirteen buildings.

Of course, they were also cognizant of LUPTON's many other advantages.

To begin with, LUPTON Aluminum Curtain Walls are only one-third as thick as conventional masonry. This means extra floor space. And, because lightweight LUPTON construction reduces the overall weight of buildings considerably, foundation and framework costs are lowered. Insulated spandrel panels cut fuel costs.

Erection is fast and economical—usually from within the building, without scaffolding. Assembly is simplified,

routinized, because all parts are accurately made and delivered on schedule by LUPTON. In fact, LUPTON Aluminum Curtain Walls are often put up by LUPTON's own experienced, fast-moving crews. LUPTON can, and will, do the whole job—enabling you to pin-point responsibility.

Why not investigate the advantages of LUPTON construction yourself? See SWEET'S (Sections 3 and 17) for the Michael Flynn Aluminum Curtain Wall and Window Catalogs, and write for further specific information. A call to the nearest LUPTON representative (see the Yellow Pages under "Windows—Metal") will bring fast action without obligation.

LUPTON

METAL WINDOWS • CURTAIN WALLS

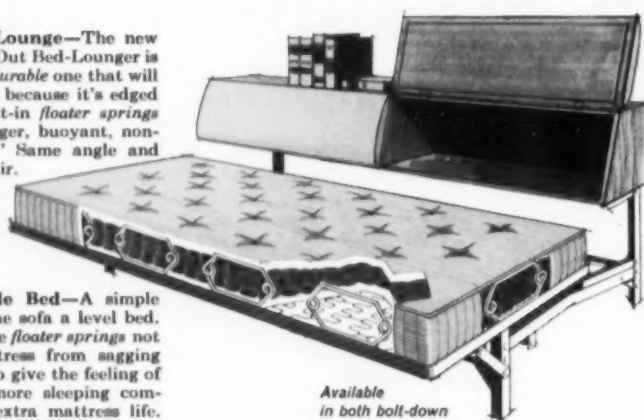
MICHAEL FLYNN MANUFACTURING COMPANY
Main Office & Plant: 700 E. Godfrey Ave., Philadelphia 24, Pa.



ONE Pull-Out Bed-Lounger* does a 4-piece job...for less!

It's A Luxurious Lounge—The new Southern Cross Pull-Out Bed-Lounger is a sofa by day, and a durable one that will stand lots of sitting, because it's edged all around with built-in floater springs that provide a stronger, buoyant, non-sagging "seat edge." Same angle and pitch as an easy chair.

It's A Comfortable Bed—A simple conversion makes the sofa a level bed. And the edge-to-edge floater springs not only keep the mattress from sagging at the edges, but also give the feeling of greater roominess, more sleeping comfort, plus years of extra mattress life. Regular or extra length.



It's A Storage Chest—Provides plenty of space to store pillows, blankets. Can be had with single or double storage cabinets, doors hinged top or bottom. Bolster back cushioned in foam rubber, covered in heavy-duty synthetic leather for longer wear.

It's A Book Shelf—The new Pull-Out Bed-Lounger has a shelf-top, and can be had with book-end attachments. And since the shelf extends the entire length of the Bed-Lounger, it makes a roomy holder of all sorts of things, and eliminates that "cluttered room" look.

Write for complete descriptive folder

Available on contract to members of the
Educational and Institutional Cooperative Service, Inc.
1461 Franklin Ave., Garden City, L.I., New York

SOUTHERN CROSS

Dormitory Sleep Products, Contract Division, Southern Spring Bed Company, 290 Hunter Street, S.E., Atlanta 1, Georgia. MUrray 8-2154 *Patent applied for

WHAT'S NEW

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card on page 115. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Medart "Bank Mover" Operates Banks of Gym Seats

Any number of telescopic seat sections, side by side in a row as long as 112 feet



and 15 rows high, can be opened and closed at one time with the new Medart "Bank Mover" power operator. Gym seat sections from 12 to 21 seat rows can be automatically handled by the "Bank Mover" in total length up to 80 feet. The mover is built integral with the seats and requires no floor tracks or building changes. It operates from any ordinary 110 or 220-volt power source.

With the "Bank Mover," as with the Medart "Unit Mover," the controlled speed prevents damage to seats and wall fastenings which might be caused by banging and slamming of telescopic seats. A limit switch in the control circuit prevents overtravel in either direction. The power-operated seats will lock instantly in any position, during opening or closing, by release of the key in the control switch. Fred Medart Products, Inc., 3535 DeKalb St., St. Louis 18, Mo.

For more details circle #75 on mailing card

Fiberglass Seating Is Stainproof



Brunswick school furniture is now available with molded fiberglass seats and backs. The product is described as providing more comfortable resiliency and more permanent

color while being virtually completely resistant to stains. It has maximum impact strength and is easily molded to the desired shapes. Laboratory tests conducted by Brunswick in conjunction with the University of Kansas employed ten normally damaging laboratory liquids which failed to mar or pit the "Lifetime Fiberglass" used in its classroom products. The Brunswick-Balke-Collender Co., 623 S. Wabash Ave., Chicago 5.

For more details circle #76 on mailing card

Large Bottles and Cans Now Easily Handled

The Tilt-Right Can Tilter is a handy device for pouring from large round or rectangular containers. It will hold five-gallon cans or bottles and makes the contents readily accessible at all times. Time is saved in dispensing and the liquids can be poured without waste or spilling. The Tilt-Right operates easily, quickly and safely with one hand.

The device has a sturdy all steel frame with rigid stand and double A-frame legs



braced securely at the floor. It folds for storage when not in use, and is quickly set up to hold heavy containers. The adjusting device grips the container securely for use. The Paul O. Young Co., Line Lexington, Pa.

For more details circle #77 on mailing card

Language Laboratory Systems Facilitate Learning

A complete range of Language Laboratory systems for colleges and high schools is introduced by the Radio Corporation of America. A newly-developed transistorized amplifier with switching provision for ten language channels is the key unit of the systems. Measuring only four by three by eight inches in size, one amplifier is provided for each student who is seated in a three-sided booth, wearing headphones, and with amplifier and microphone. Pre-recorded lessons are received over the headphones from tape recorders. The student repeats what he hears into the microphone and is thus able to play back his

own speech for comparison of accent, inflection and pronunciation.

Variations of the teaching system are many, permitting the setting up of a lan-



guage laboratory to meet the requirements or methods of the instructor. The system is designed to facilitate the learning of languages and permit individual instruction, thus allowing students to progress according to ability and aptitude without being hampered by others. The transistorized design of the amplifiers requires just one power supply for every fifty student positions, requiring a minimum of wiring and installation expenses. Radio Corporation of America, Camden 2, N.J.

For more details circle #78 on mailing card

Vinyl-Clad Seat on Tubular Folding Chair

The all-steel tubular frame of the Durham No. 876 folding chair gives strength and rigidity. The extra large, curved 16 by 16-inch seat surface has deep sides and round corners for maximum comfort, and the russet-brown vinyl-clad finish gives the appearance of leather. The finish is burn and marproof and does not change appearance with hard wear, even in outdoor use. It is easily cleaned by wiping with a damp



cloth. The chair opens and folds with one motion and is sturdily constructed for heavy duty use. Durham Mfg. Corp., Muncie, Ind.

For more details circle #79 on mailing card
(Continued on page 96)

Profession-L Practice Desks From Four Basic Units



Over 35 modular combinations are possible with the four basic units in the Cramer

Profession-L Business Practice School Furniture. Units include the adjustable platform sections with 18 by 24-inch or 20 by 40-inch top sizes and the fixed-height platform, all for either right or left-hand combination. Utili-Desk and an attachable book shelf. The modular components are assembled in any arrangements required.

Heavy gauge metal flanges, brackets and tamperproof screws assure sturdy, rigid construction. Frames are of heavy square steel tubing, tops have high pressure laminated plastic surfacing on both sides with rounded corners and tapered edges, and the steel rubber-cushioned glides compensate for uneven floors. The leg design gives maximum knee space for sitting comfort. The adjustable typewriter or business ma-

chine platforms hold heavy electric typewriters as well as other machines and the Micromatic Screw height adjustment mechanism permits the heaviest machines to be raised or lowered with little effort. The durable finish is available in seven attractive colors and is resistant to scratching and chipping. **Cramer Posture Chair Co., Inc., 625 Adams St., Kansas City 5, Kans.**
For more details circle #80 on mailing card

Asbestos-Cement Material Has Multiple Uses



Eleven years of research with Johns-Manville Colorlith, originally developed as a laboratory table top material, shows it to be a versatile product. Colorlith is a mixture of Portland cement and carefully selected asbestos fibers combined with chemically resistant colorings and fillings and subjected to hydraulic pressure to form a dense, homogeneous sheet whose surface can be polished to a high degree of smoothness while retaining a soft textured appearance. The product proves to be effective in use in walls, window sills and similar areas, in chalkboards, baseboards, spandrels in curtain wall construction, wainscoting, radiator enclosures, toilet compartments, shower stalls, sinks and fume hoods.

Colorlith is also effective as a decorative and durable wainscoting in lobbies, halls, kitchens, locker rooms and rest rooms. It withstands abuse, is stronger than stone, and is supplied in sheets of workable size. In addition to its structural strength, Colorlith is highly resistant to most common acids and alkalis, is easy to maintain, and is now available in Cameo Brown and Surf Green in addition to the original Charcoal Gray. **Johns-Manville Corp., 22 E. 40th St., New York 16.**

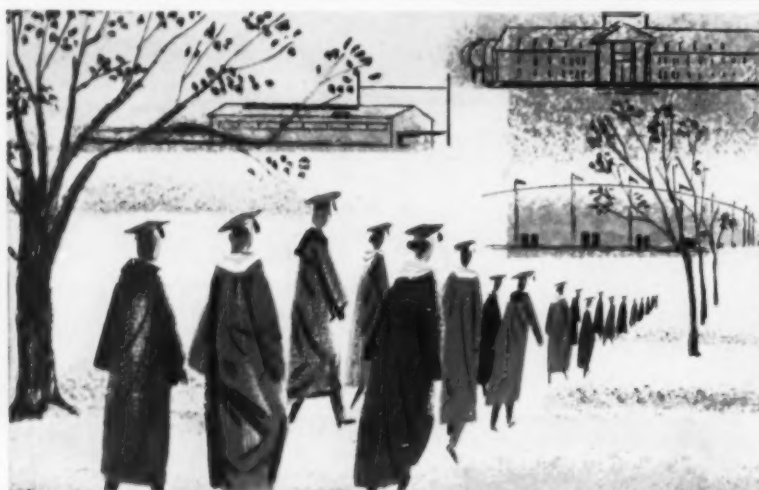
For more details circle #81 on mailing card

Shine-Up Furniture Wax Speeds Maintenance

Dusting and waxing can be done in one operation with Johnson's Shine-Up. It is sprayed directly on the surface of the furniture, or on a dust cloth, giving a rich, long-lasting shine while removing dust. It can be used on wood and on such surfaces as Formica, porcelain, brass, stainless steel, chrome, plastic wall tile, marble or leather. It is merely wiped with a dusting action with no drying time or second wipe-off required. The wax film is dry, non-oily and non-smearing. Shine-up is sold in gallon containers with a spray can and funnel. **S. C. Johnson & Son, Inc., Racine, Wis.**

For more details circle #82 on mailing card

(Continued on page 98)



Some Recent Programs Directed by American City Bureau

COLLEGE	TYPE OF PROJECT
Butler University, Indianapolis, Ind.	Development Program
Loyola Academy, Chicago, Illinois (2nd campaign)	New Building Campaign
Pacific Lutheran College Parklan, Washington	Local Community Campaign
South Dakota State College Brooking, South Dakota	"Stadium for State" Campaign
Tudor Hall Preparatory School Indianapolis, Indiana	Building Campaign

When your plans call for additional funds,
Bring in the Bureau...

Fund-Raising is Our Business

American City Bureau
(Established 1913)

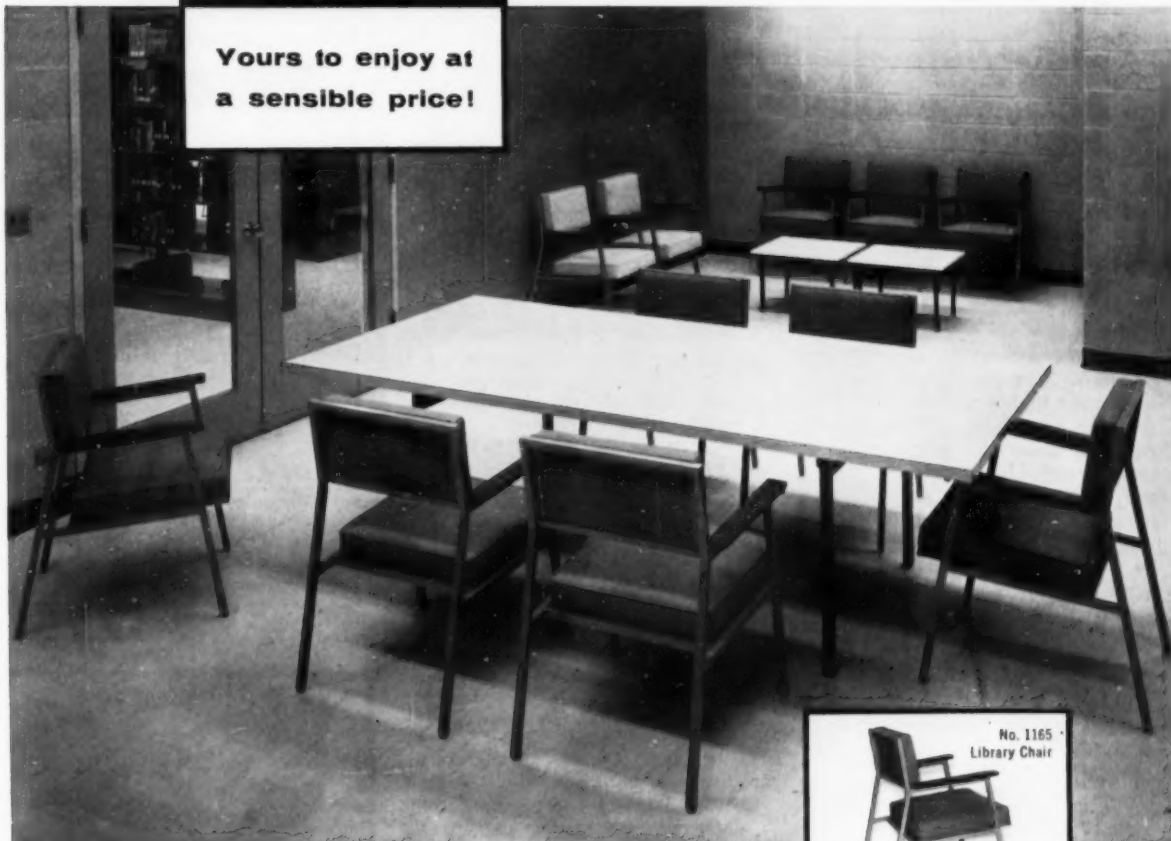
3520 Prudential Plaza, Chicago 1, Illinois
New York & West Coast Representatives

FOUNDING MEMBER AMERICAN ASSOCIATION OF FUND-RAISING COUNSEL

- **BEAUTY**
- **COMFORT**
- **DURABILITY**

**Yours to enjoy at
a sensible price!**

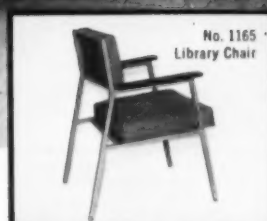
A recent Steelcase installation: the new Undergraduate Library at the University of Michigan. Seminar room, showing No. 1165 Steelcase chairs grouped around Steelcase self-edged Formica top tables.



Ask any librarian what kind of tables and chairs he prefers in the reading and study rooms and you'll hear, "well-designed" . . . "comfortable" . . . "easy-to-move" . . . "practical" . . . "must be quiet!" This latest Steelcase equipment shows how perfectly these preferences for library and other institutional furniture can be met. Even the need for silence has been anticipated: tables and chairs are fitted with patented Steelcase "domes of silence" chrome glides that reduce noise of moving to a whisper. Yet, you pay no premium. The cost is surprisingly modest.



For a better look at these and the rest of the new Steelcase line, write for a copy of our new full color brochure. Address Dept. C, Steelcase Inc., Grand Rapids, Michigan. In Canada: Canadian Steelcase Co., Ltd., Don Mills, Ontario.



No. 1165
Library Chair



No. 1276
Cafeteria Chair



No. 1243
Institutional Chair

STEELCASE INC



The Insured TUITION PAYMENT PLAN

This is the prepayment plan that brings the parent low-cost life and disability insurance protection, plus a monthly budget provision that extends to the final month of his educational expenses four or more years hence. Used today in many of the best-known colleges and preparatory schools, it has proven most valuable to administrative officers by providing them with a dignified, parent-approved method which:

- 1 alerts parents to their financial obligation when the student is accepted for admission;
- 2 offers parents a convenient and logical plan for meeting that obligation;
- 3 assures the parent (and thus the college) that he will have adequate funds with which to meet his college obligations in full and on time;
- 4 preserves the traditional relationship between the college and the parent—debt-free and direct.

Individualized descriptive literature for mailing to the parents of incoming students is furnished for each preparatory school, college or university.

WRITE TODAY FOR DETAILS

We should like to know more about the Insured Tuition Payment Plan as it would apply to the students at:

Name of School
or College _____

Address
Please contact: _____

Name _____

Title _____

INSURED TUITION PAYMENT PLAN

RICHARD C. KNIGHT
112 WATER STREET
BOSTON 9, MASSACHUSETTS

Electrostatic Printer Makes Low-Cost Enlargements

Enlargements of microfilmed drawings and records can be made at economical cost with the new Bruning Copytron Model 1000 Enlarger-Printer. A new electrostatic principle is employed in the operation of the machine to produce permanent, black-on-white enlargements of records and



drawings which have been reduced to 35mm microfilm size. It enlarges microfilm 14 to 16 times and prints the enlargements on sheets ranging from 1½ by 11 inches to 18 by 24 inches. Finished prints are delivered at the rate of about four per minute. The machine is self-contained and consists of two sections, the enlarger and the reproducer. **Charles Bruning Co., Inc., 1800 W. Central Rd., Mount Prospect, Ill.**
For more details circle #83 on mailing card

Heavy-Duty Vinyl Flooring Is Durable and Attractive

The Tessera series in Vinyl Corlon sheet flooring is a heavy-duty material developed for institutional use. Made in a heavy gauge sheet form six feet wide, Tessera is a resilient flooring which is exceptionally durable, easily maintained and attractive in design. Made with Hydrocord, a moisture-resistant backing, the flooring

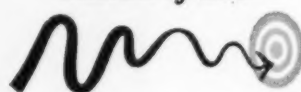


may be installed in basements and other below-grade spaces as well as on suspended and on-grade subfloors.

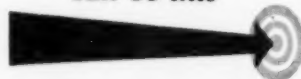
Tiny square-faced vinyl tiles make up the wearing surface of Tessera Vinyl Corlon. While standing out individually in the design, the cubes are imbedded in vinyl and surrounded with vinyl grout, producing a slightly embossed surface which breaks up the high natural gloss of the plastic to hide imperfections in the subfloor and to conceal scratches which may show up. The flooring is highly flexible, yet has a tough wearing surface. It can be coved or streamlined, and is available in seven tone-on-tone colorings. **Armstrong Cork Co., Lancaster, Pa.**

For more details circle #84 on mailing card
(Continued on page 100)

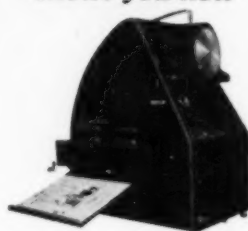
instead of this



COMMUNICATIONS
can be this

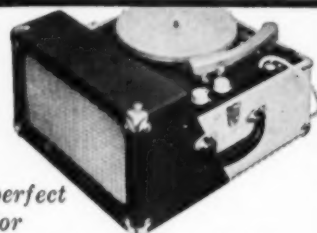


BESELER
shows you how



Beseler's VU-LYTE II, the most advanced Opaque Projector, can improve communications in your school. Write for the illustrated brochure: "Turn Teaching Into Learning."

Charles Beseler COMPANY
EAST ORANGE, NEW JERSEY



perfect
for
instruction and recreation

**NEWCOMB
DEPENDABLE**

CLASSROOM RECORD PLAYERS AND RADIOS

Newcomb sound products have proven their dependability by delivering years of trouble-free service in leading school systems throughout the country. They are safe; ruggedly built of the finest quality materials; most are transformer powered for best performance, maximum safety. With easy-to-service construction and quickly available American-made parts, it is a simple matter for any service man to put the equipment in like-new condition.

NEWCOMB serves your other sound needs with **DEPENDABLE PUBLIC ADDRESS AMPLIFIERS** and **DEPENDABLE TRANSCRIPTION PLAYERS**. Write for complete catalog.

NEWCOMB AUDIO PRODUCTS CO., Dpt. CU-4
first in sound since 1937
6824 Lexington Ave., Hollywood 38, Calif.

HERE'S THE ANSWER TO YOUR SCHOOL DUPLICATING PROBLEMS



AVAILABLE IN
ELECTRIC OR
HAND-OPERATED
MODELS

Heyer

TESTED and PROVED!

Efficiently runs all papers—from postcards to newsprint.

TESTED and PROVED!

Automatically feeds papers that have been cut unevenly.

TESTED and PROVED!

New separator fingers eliminate side rubbers and adjustments.

FOR EVERY BUDGET

Model 75—Hand operated, with all the features except electric drive. \$214.50

Model 76A—Electric, with Automatic Start-Stop. \$299.50

Model 76B—Electric, with 11" and 14" cylinder stop selector. \$324.50

Mark III CONQUERORS[®] new paper feed that passes every test!

Here's proof that Heyer Conqueror Spirit Duplicators are specifically engineered and constructed to cope with the special problems and hard usage that are common in school duplicating. Following are some excerpts from a recent *unsolicited* testimonial regarding a Conqueror purchased 5 years ago by a school: "... twelve different teachers using this machine... never had to give the girls any instructions"—"... its simplicity of operation and the ruggedness of the machine itself is quite a combination."—"... thousands of sheets of paper of all grades, sizes and weights have gone through this machine, and never once did it falter."

Today, Heyer combines that established superiority with exciting, years-ahead innovations and improvements to bring you the brilliant new Mark III Series. They are so simple to operate a child can run them. They will *dependably* print on all papers—in 1 to 5 colors at once...

anything typed, drawn or written on a spirit master. Conquerors deliver 330 copies in just 3 minutes, at only a fraction of a cent each. Deeper feed tables have up to twice as much paper capacity as some competitive models.

In addition, you save both time and money with such Heyer "firsts" as a Feed Tension Control at *no extra charge*... Copy Positioner Control, that raises or lowers copy quickly, effortlessly... Visible Fluid Supply, that conquers the problem of running dry... a built-in Copy Counter that conquers waste... and the Automatic Start-Stop (on electric models), that shuts off the machine when the last sheet is fed through.

Sold and serviced by a nation-wide organization of selected dealers, and backed by Heyer's 56-year reputation for superior quality and performance, a Heyer Mark III Conqueror is your best buy in spirit duplicators.

YOU BE THE JUDGE!

Mail coupon today for new illustrated Catalog describing complete line of Heyer Duplicators and Supplies, and details about a ONE WEEK FREE TRIAL of a Mark III Conqueror Spirit Duplicator. No obligation, of course.



The HEYER Corporation
1851 S. Kostner Ave., Chicago 23, Ill.

4-59

Gentlemen:
Please RUSH my FREE Catalog and information about a ONE WEEK FREE TRIAL.

NAME _____

SCHOOL _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

Electric Adding Machine Has Operating Advantages

New operating advantages in the Remington Rand Electric Adding Machine give freedom and speed in the "handspan" key-



board and the balanced feature-key placement. Instantaneous response to a light but positive touch permits rapid calculation without the risk involved in "hair-trigger" keyboards. All feature keys are electrified and arranged in perfect balance with the keyboard designed for touch-method operation. The new Model 93 is modern in design, available in any of four decorator colors. The company also introduces a new line of Non-Electric Adding Machines with similar improvements in engineering and design. Remington Rand Div., Sperry Rand Corp., 315 Fourth Ave., New York 10.

For more details circle #85 on mailing card

String Bass Chair Stand for Playing and Storage

Any standard size string bass is held in proper position for playing on the new Wenger String Bass Chair. In addition, the

chair can be used to hold the instrument securely for storage. Adjustment features permit holding the large instrument in a natural restful position for either the standing or the seated player and the steel foot ring, padded seat and self-adjusting glides give it adaptability. The foot of the instrument rests firmly in a cup arrangement welded to the end of the lower adjustable tube. The top fastens securely to the upper



adjustable tube, permitting rotation of the instrument as required without danger of it sliding out of control. Wenger Music Equipment Co., Box 300, Owatonna, Minn.

For more details circle #86 on mailing card

Vibroflotation System for Building on Sand

A foundation system for buildings which must be constructed on sandy soil is described as Vibroflotation. It is a compacting service which eliminates the need for pilings and transforms sand into a compact, uniform mass, capable of supporting the

heaviest loads. The compaction results from the simultaneous vibration and saturation of a granular soil by a Vibroflot machine. It is achieved by removing the voids between particles through rearranging the grains of sand into a tight mass throughout the desired depth of the area involved, producing cylindrical compacted sand columns on which any light or heavy structure can be built. The Rust Engineering Co., 930 Fort Duquesne Blvd., Pittsburgh 22, Pa.

For more details circle #87 on mailing card

Chef Style Potato Flakes for Instant Preparation

Boiling water and cold milk are added to the new Chef Style Potato Flakes to produce tasty whipped potatoes that stand



up for long periods on the steam table. Preparation time is cut to a minimum with the new flaked instant potatoes and small or large portions can be ready for serving in two minutes. The Pillsbury Company, Minneapolis 2, Minn.

For more details circle #88 on mailing card

There's a ROSEMAN

GANG MOWER

for
EVERY MOWING NEED!



3 gang lift-type model for Schools, Institutions, Industrial Plants, Parks, etc. Cuts a full 7 foot swath. Ideal for all around maintenance of lawn areas at lowest possible cost.



5 gang Fold Back model. Finger-tip hydraulic lift to climb curbs. Units fold back for transport on public streets. Quickly detachable to free tractor for other use. Ideal for Park and School District use.



5 gang model for golf courses and other fine lawns. Hollow Roller design places less weight P.S.I. and leaves no wheel marks. Uniform mowing results.

Roseman Mowers pay for themselves out of savings. Tractor may be used for other year round work.

ROSEMAN

MOWER CORPORATION

2619 CRAWFORD AVE.
EVANSTON, ILLINOIS, U.S.A.
UNIVERSITY 4-1842

A LECTURE IS ONLY AS GOOD AS IT SOUNDS!

and how it sounds depends
first on your P. A. Microphone

Don't let a poor Public Address Microphone stand between your lecturers and your students—because if what's being said is important, it's important that the listeners hear it...every word!

get the microphone that gets
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COLLEGE and UNIVERSITY BUSINESS

Trunnion Kettle Has Electronic Control

The Model HK50 Trunnion Kettle features critical electronic temperature control essential for sauces, gravies and other specialties, as well as for regular stockpot work. The new kettle is designed to handle



quality speed-cooking in small quantities, is easy to operate and is swiveled to permit manual tilting for convenience in pouring. Separate controls select the full range of heat from simmer to full boil. The kettle is easy to clean and to service. Accessories available include a basket for vegetables and deep-frying, a mechanical timer and a cover. Hotpoint Co., 6201 W. Roosevelt Rd., Berwyn, Ill.

For more details circle #89 on mailing card

Functional Color Kit Assists in Planning

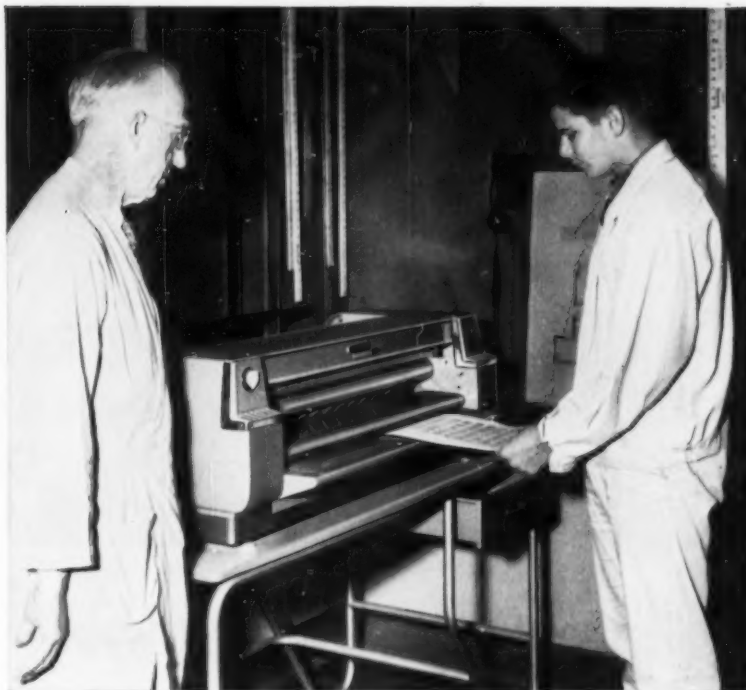
Specifying the proper colors to use in the various areas of teaching and living facilities to achieve the most desirable effects is greatly facilitated with the new Functional Color Kit now available. Developed by a group of thirteen paint manufacturers in the United States and Canada, based on research by lighting engineers, ophthalmologists and color specialists, the kit contains 36 paint color chips identified by number,



showing reflectance percentages of each. The colors are divided into groups under Functional Colors, Decorative Colors and Special Colors.

A brochure prepared by a color authority on "The Scientific Application of Color to Schools" is included in the kit. It points out how colors can be used to reduce contrasts, aid legibility and relieve visual and physical and nervous tensions, thus contributing to better attention and faster learning. Full color illustrations demonstrate the recommended colors for various areas and the reasons for the selection of each are explained. The kit is offered as an aid to administrative personnel. Colorizer Associates, 345 N. Western Ave., Chicago 12.

For more details circle #90 on mailing card
(Continued on page 102)



"Worth its Weight in Textbooks!"

Mr. William Cole, mechanical drawing instructor at Abraham Lincoln High School in San Francisco, is a firm believer in textbooks. But he also recognizes the invaluable practical training his students are getting through use of their Bruning Copyflex Model 300 reproduction machine.

Right in the class room, students make sharp, black-on-white diazotype prints in seconds of their drawings or tracings — up to 30-inches wide by any length. They learn for themselves how their drafting board work effects the sharpness and clarity of prints. They gain valuable experience with all of the drafting and reproduction techniques involved with such materials as intermediates and film overlays. In short, Mr. Cole's students are getting *today* the whiteprinting experience and benefits they'll utilize *tomorrow* in industry!

You owe it to yourself and your students to investigate the remarkable Copyflex "300". It offers all the versatility and big printing width of a large, expensive diazotype reproduction machine — at a price to fit school budgets. Moreover, the "300" can be utilized for fast, labor-saving reproduction of student transcripts and a wide variety of records, reports, charts, and memoranda. Why not mail the coupon right now for more information?



Bruning Copying Equipment
Has Been Selected for
Special Exhibition in
SCHOOLROOM PROGRESS U.S.A.

BRUNING
Copyflex

Send for Your Free Copy!

Charles Bruning Company, Inc., Dpt. 4CCC
1800 Central Rd., Mt. Prospect, Ill.
In Canada: 105 Church Street, Toronto 1, Ont.

- ☐ Please send me my free booklet on Copyflex Model 300.
☐ Please have your local representative call on me.

Name _____ Title _____
Company _____
Address _____
City _____ County _____ State _____





Architect: James, Meadows and Howard, Buffalo, N. Y.

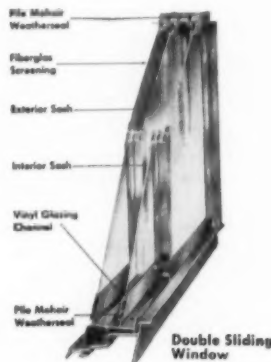
Modern Fleetlite Sliding Windows Chosen for Tower Dormitory on the University of Buffalo Campus

Rising eleven floors above the University of Buffalo campus is the new Tower Dormitory... a masterpiece in concrete, brick and colorful terra cotta with row upon row of Fleetlite Aluminum Double Windows.

In planning this campus home for over 400 student residents, University authorities selected Fleetlite double windows for reasons of both comfort and economy. By a simple adjustment of the interior and exterior sliding sash, students may enjoy indirect ventilation regardless of the weather. No stuffy rooms, no drafts, no possibility that rain or snow will damage furnishings.

Fleetlite double windows also mean double economy. A "blanket of air" insulation between the sash

results in more efficient heating and subsequent fuel savings. At the same time, there is economy in maintenance. Durable aluminum requires no painting; vinyl plastic replaces putty; and, since all sash may be removed from the inside for cleaning, costly and dangerous outside window washing is eliminated.



Double Sliding Window

Fleetlite
AMERICA'S Finest WINDOW
Aluminum Windows
Sliding Glass Doors
Jalousie Windows and Doors

FLEET OF AMERICA, INC.
Dept. CU-49, 2015 Walden Avenue
Buffalo 25, New York

Please send complete Fleetlite window information.

Name _____

Address _____

City _____ State _____

Electronic Organ Kit Effects Savings

Schools and colleges may now acquire the Artisan Electronic Organ completely assembled or in kit form for assembly by students or other groups. The organ has specialized electronic circuitry, individual tone generators for each note and other developments which produce realistic pipe



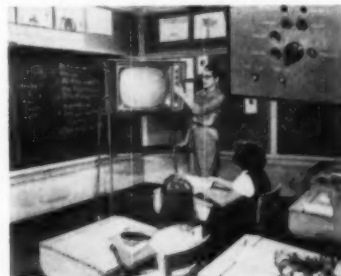
organ tones. Kits are complete in every detail with console, keyboard and pedal factory-assembled, ready for finishing.

The electronic components are assembled and installed from easy, step-by-step instructions. No previous knowledge of organ construction is needed to build the organ and considerable savings can be effected when the organ kit is purchased for assembling at the school. A complete line of accessories for the Artisan, which are played from either manual, include such percussions as drums, xylophone, chimes, bells, tambourine and others. Electronic Organ Arts, Inc., 4578 Eagle Rock Blvd., Los Angeles 41, Calif.

For more details circle #91 on mailing card

Classroom 21 TV Receiver for Closed-Circuit or Broadcast

Designed especially for classroom use, the new Classroom 21 television receiver can be used in either closed-circuit television systems or for broadcasts. High definition pictures are provided for detailed reproduction of slides, experiments and other material when used in closed-circuit systems. Special RF, video and audio jacks simplify installation of multiple classroom receivers. Clear reception is as-



sured by the front mounted internal speaker and a separate audio input jack allows use of the unit as a public address speaker.

The Classroom 21 can be instantly changed from closed-circuit operation to over-the-air pickup of broadcasts by operation of a switch. A high contrast picture with minimum reflected glare is provided through the tinted shatterproof face plate. A 20-foot heavy duty service cord permits freedom of location. The set is 19 by 28 by 17 inches in size. Motorola Inc., 4501 W. Augusta Blvd., Chicago 51.

For more details circle #92 on mailing card

Customized Library Equipment in Flexible Whelan Units

The new Whelan MVM line of library equipment permits the assembly of a modern, customized library at economical cost. Six individual units in the line are



available to serve as components of a charging desk. Any combination of units can be combined with a continuous top to form a complete charging desk U-shaped, L-shaped or straight. Card catalog cabinets, display units and shelving can be combined in a similar manner to meet individual requirements. Single or double-faced shelving is available in sectional units or with continuous tops and bases.

Constructed of birch with a special silver birch finish that resists normal wear and tear, the new line has tapered design accented by a contoured trim of solid birch. The complete line includes dictionary and speaker stands, tables, chairs, book trucks, card files, charging desks and special display cases. Whelan's School Equipment Div., 715 E. 4th, Topeka, Kansas.

For more details circle #93 on mailing card

Tempo Teachers Desk Has Companion Chairs

The double-pedestal style Tempo Teachers Desk No. 996 provides a 30 by 60-inch work top and six generous-sized drawers. The all-welded steel frame gives strength and stability and the tapered legs have self-leveling, rubber-cushioned steel glides. The work top may be of plastic or hardwood



plywood with plastic surface. The baked enamel metal finish is offered in Beige, Dove Gray, Sage Green, Coral and Ocean Blue.

Matching companion chairs in three designs are also new in the Griggs line. The Tempo Arm Chair No. 946 has upholstered seat and back, Tempo Arm Chair No. 945 has hardwood plywood seat and back, and the Tempo Chair No. 941 has upholstered seat and back without arms. The chairs have matching metal finish with harmonizing upholstery. Griggs Equipment Inc., Belton, Texas.

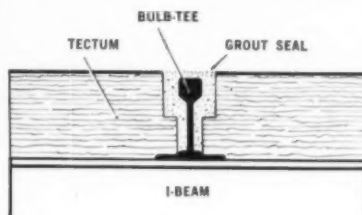
For more details circle #94 on mailing card
(Continued on page 104)



Building: Michigan State Normal Field House, Ypsilanti, Mich. Architect: Giffels & Rossetti, Detroit; Associate: R. S. Gerganoff, Ypsilanti.

GIANT FIELDHOUSES NEEDN'T BECOME GIANT ECHO CHAMBERS

Hard walls and roof deck surfaces can reflect the noise of crowded recreational areas — often to the point of spoiling the fun of the game. Conventional open construction is mandatory because of size and cost; it needn't become an echo chamber.



Tectum roof decks offer a solid basis for economy in large buildings with savings in erection time, material costs and maintenance. Tectum is in-

sulating, acoustical and noncombustible with a pleasing textured surface that normally does not require painting. Its acoustical values are highly rated for the absorption of sound and the reduction of din and noise wherever people work or play. Tectum is a dry structural panel, supplied in custom lengths to order. They are quickly erected, are light weight and place large areas under roof in the shortest possible time.

Almost 90 million board feet of Tectum has been used during the past six years for schools, dormitories, gymnasiums and fieldhouses. For complete information write Tectum Corporation, Newark, Ohio. Plants in Newark and Arkadelphia, Arkansas. Regional offices and competent distributors in all leading areas.

Tectum®



Non-Toxic Insecticide in Odorless Spray

A newly developed automatic spraying method which ejects minute doses of the non-toxic germicide Done-Died into the air at regular intervals, provides an effective insect-control program for kitchens, cafeterias and other food handling areas. Flies, mosquitos, gnats and other insects are kept under control with use of the new development. **Huntington Laboratories, Inc., Huntington, Ind.**

For more details circle #95 on mailing card

Portable Vacuum Cleaner Contoured to Fit Back

The new model ST-59 Strapavac Vacuum Cleaner, of molded high impact casing



with aluminum trim, is contoured to fit the back comfortably in carrying and weighs only ten pounds. It may be converted

quickly to an easy-wheeling floor model or powerful blower if desired and the one h.p. motor with Aero Cyclonic Action has strong suction power. A disposable paper bag inside the cloth filter bag permits constant air flow with no loss of suction until the bag is full. The versatile Strapavac has a variety of attachments for vacuuming all floors, carpets and walls in both crowded and open areas. **The M. D. Stetson Co., 64 E. Brookline St., Boston 18, Mass.**

For more details circle #96 on mailing card

Paint Quickly Removed With Electric Tool

Paint removal, floor sanding, concrete surfacing and other usually slow processes are quickly and safely done with minimum effort with the new Porter-Cable Paint Remover. The portable tool is equally effective on wood, plastic or composition materials and is used with regular abrasives. It is light in weight and operates without gouging or marring. **Porter-Cable Machine Co., 70 Marcellus, Syracuse 4, N.Y.**

For more details circle #97 on mailing card

High-Bay Lighting Fixtures Are Lightweight and Efficient

Designed for interior lighting of gymnasiums, auditoriums, tennis courts and other buildings having high ceilings, the new Crouse-Hinds Type MDS lighting fixtures are light in weight and easy to assemble and wire. They are available for 300-1500 watt incandescent or 400-watt mercury lamps and are highly efficient in operation. Fixtures may be ordered with

separable or single piece head and with wide angle reflector suitable for low and medium mounting heights. They are also



available with concentrating reflector for high mounting and narrow areas. **Crouse-Hinds Co., Syracuse 1, N.Y.**

For more details circle #98 on mailing card

Hardwood Veneer Seat on Tubular Folding Chair

Selected hardwood veneer, rivet-secured within a tubular steel frame, forms the seat of the new Krueger No. 902-E metal folding chair. The strong, rigid, heavy gauge, electrically seam-welded tubular steel frame has a deep, contour-shaped backrest, simple folding operation and non-marring Super-Dylan feet. **Krueger Metal Products Co., Box 1097, Green Bay, Wis.**

For more details circle #99 on mailing card

(Continued on page 106)

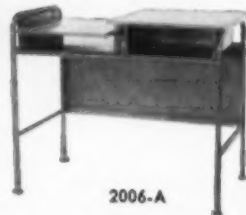
EQUIPMENT FOR ALL VOCATIONAL AND COMMERCIAL DEPARTMENTS

HARCO



AC-460

AC-460 The deluxe of drawing tables. Large 24" x 24" adjustable drawing surface (larger available). Equipped with built-in board storage for 6 boards 20" x 28" and built-in taboret with 6 drawers with individual locks and keys and master key.



2006-A

Teacher's desks, demonstration stands, student's business machine stands, adjustable typing stands or adjustable chairs—all are posture equipment in matching colors and styles.

2006-A adjustable typing stand. After individual is properly seated by Harco adjustable chair, typewriter platform can be adjusted to correct relation between individual and typewriter. Provides proper posture and typing efficiency.

C-1624 Stool. Designed for all vocational departments, Drafting, biology, chemistry, art, shops, etc. Full 8" adjustment—cast iron base with round steel or wood seat. Back available.



"LIFT-LOK" Posture Chairs And Stools By HARCO
Over 25 models of completely adjustable chairs and stools. Full 7" height adjustment. Write for catalog and price list of complete line.

WRITE FOR FREE 30 DAY NO OBLIGATION TRIAL BASIS AND QUANTITY PRICE LIST OF COMPLETE LINE.

GARRETT TUBULAR PRODUCTS, INC.

P.O. BOX 237 GARRETT, INDIANA

Meterflo®

SELF SERVICE DISPENSERS

FOR REFRIGERATED OR HOT LIQUIDS

... the nation's first and leading bulk liquid food dispensers for fully automatic fingertip portion control delivery.



Just "touch" the button for automatic delivery, portion controlled!



Also available for coin operation... around the clock!

Also available 1-3 flavor fully automatic cup vendor.

- 20 Gallon capacity
- In-line or off-line 24-hour service
- Simplified handling cuts labor cost
- Counter, under counter or floor models
- All models use standard 5 or 10-gallon dairy cans
- All use proven Meterflo "lift" principle
- Fast delivery cycle—1 to 24 ounces
- Conforms to sanitary and health dept. standards

Ask your dealer
OR WRITE TO

Meterflo®
DISPENSERS
Niles, Michigan



Floor Model F-2 with or without leg or casters



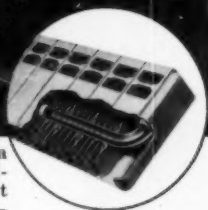
Health-guarding heat for the life of the room with SHAW PanelVectors

Shaw PanelVectors distribute a health-guarding, unstratified balance of radiant and convected heat that only Nature—at her best—can rival. Rigid, fully-integrated steel and copper construction requires no servicing, is indestructible in institution use.

Get all of the Shaw PanelVector story. Write today for Cat. 59-G!

SHAW PERKINS MFG. CO.

Properly Designed Room Heat Distribution Equipment
201 E. CARSON ST., PITTSBURGH 19, PENNA.



Shaw PanelVectors—baseboard or wall-hung—are available in sizes to meet any room-heating requirement.

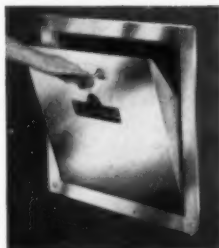
Without Centralized Disposal...even a new building is obsolete!

Centralized disposal in multi-story buildings is more than a convenience—it assures yearly savings for the life of the building. Wilkinson Chutes are designed for the centralized disposal of soiled linen, rubbish, dust, waste paper, garbage, or any other material that can be dropped without damage from an upper floor.

See our catalog
in Sweet's
Architectural File
26f
W1

WILKINSON CHUTES, INC.

619 East Tallmadge Ave., Akron 10, Ohio



Wilkinson "B" Labeled Door. Designed for Hand or Foot Operation.

In college and dormitory buildings, Wilkinson waste paper and rubbish chutes eliminate excessive janitorial help by efficient central disposal.



Save Space and Money with MENDEL Closet Walls!

Mengel Closet Walls are factory-built modular units, shipped K.D. in individual cartons, in 2', 3', 4', 5' and 6' widths. They are all 91½" high, to permit tilt-up installation with 8' ceilings.

They are easily installed in almost any combination in place of conventional walls, thereby saving floor space and money. They are also widely used as extra closets in existing buildings.

- ▶ Provide more living space without loss of closet space!
- ▶ Cost less than conventional plaster or dry wall closets!
- ▶ Interiors equipped with rods, divider partitions, shelves and drawers, as desired. Built-in chest and desk units available on quantity orders!
- ▶ Mengel's exclusive roller hanger is easily and quickly adjusted with one screw!
- ▶ Hardwood frames with Gum, Birch or Oak plywood exteriors!
- ▶ Field-proved in thousands of institutions, apartments and homes!

MAIL THIS COUPON!



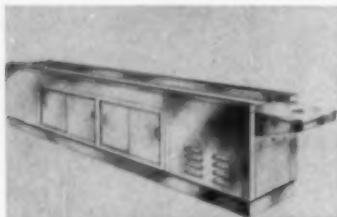
The Mengel Company
814 West 25th Street
Winston-Salem, N. C.

Gentlemen: Please rush me full details about Mengel Closet Walls.

Name _____
Firm _____
Street _____
City _____ State _____

Nylon Belting on Dish Handling Unit

Dual Track Nylon Belting is a new feature of the Caddy-Veyor, a motor driven



belt unit for easy and rapid handling of dishes and trays. The Nylon Belt is self-tensioning, ensuring longer belt life. Belt

links are self-tracking, eliminating the need for adjustment, and the endless belt has no splices. The nylon sections are rigid, shock resistant and cannot shred or ravel. The belt is easy to keep clean, does not absorb stains, and operates smoothly. The Caddy-Veyor is available in many combinations, facilitating installation to fit the needs of any food service installation. The Caddy Corp. of America, Secaucus, N.J.

For more details circle #100 on mailing card

G-E Projection Lamps for Brighter Pictures

Savings in cost as well as brighter pictures are in prospect through three new General Electric projection lamps recently introduced. The lamps have internally

mounted mirrors designed to cut projector costs by reducing the need for separate reflecting surfaces and light collection lenses. The built-in mirrors also result in brighter pictures since mirrors are protected from discoloration. All three new lamps are 500-watt, four-pin base, gold-topped lamps for use in projectors. General Electric, Photo Lamp Dept., Nela Park, Cleveland 12, Ohio.

For more details circle #101 on mailing card

Heavy Duty Mat for Shower Stalls



Students are protected from falling or slipping in showers with the new heavy duty Rubbermaid Shower Stall Mat. Available in attractive colors, the mat is 22 1/4 inches square with heavy duty construction for institutional use. The safety-cup pattern on the under side makes it cling firmly to the shower floor and the perforations give quick and complete drainage. The mat is suitable for use in student and faculty housing units. Rubbermaid Inc., 1205 E. Bowman, Wooster, Ohio.

For more details circle #102 on mailing card

Satellite Globe Facilitates Teaching

Present and future paths of a satellite around the earth, based on the angle of launching, may be determined with the new 12-inch Satellite Globe introduced by



Rand McNally. In addition to the orbit ring for tracing the path of an earth satellite, the globe contains calibration of miles, degrees and hours for measuring air distances between any two points in the world, determining latitudes and understanding earth-space relationships. Rotation is facilitated through new three-way action which brings points on earth instantly into view. Rand McNally & Co., P.O. Box 7600, Chicago 80.

For more details circle #103 on mailing card

Commercial Classroom Furniture that raises Teaching and Learning Efficiency!



The 9610 offers posture-correct comfort to keep students alert and receptive. Full, roomy birch swivel seats are properly contoured—adjust and safely lock to heights desired in seconds—position all students at correct typing height. Construction is rugged for long, maintenance-free service. And all parts are non-removable and tamperproof so they can't get "lost".

The 6100 Typewriter Table is designed and constructed to provide a permanently stable surface for accurate and vibration-free typing. This table features an all-steel base, large plastic or wood top, ample book and purse rack and spacious leg room.

We'll gladly send you current literature on these and other fine-quality Toledo products. Just mail the coupon.



THE TOLEDO METAL FURNITURE COMPANY
1404 South Hastings Street • Toledo 4, Ohio

Please send descriptive folders on TOLEDO Commercial Classroom Furniture.

☐ #9610 Adjustable Posture Chair ☐ #6100 Typewriter Desk

NAME _____

POSITION _____

SCHOOL _____

ADDRESS _____

CITY _____

STATE _____

THE
TOLEDO
METAL FURNITURE COMPANY
Toledo 4, Ohio

Nine Different Panels Available in Partitioner

Partitioner movable steel space dividers are now offered with nine different panels for various needs. Included are chalkboard for classroom work, frosted fluted glass, acoustical panel for sound control, and Masonite, corkboard and pegboard for bulletin boards and teaching. Also available are all-steel, clear glass and clear fluted glass panels. The panels slide easily into the top portion of the Partitioner and can be mixed, matched or interchanged to fit the need. They provide efficiency, con-



venience and attractive appearance in classrooms, study areas, conference rooms or enclosures. Marnay Sales Div., Rockaway Metal Products Corp., 1270 Broadway, New York 1.

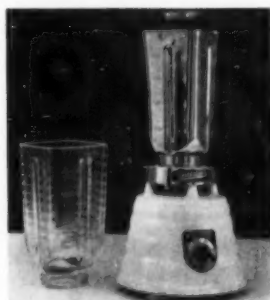
For more details circle #104 on mailing card

Metal and Glass Doors Provide Fire Protection Unit

Metal and glass doors and frames to be used as smoke and fire screens in corridors are now available. The frames have been awarded a "C" label by Underwriters Laboratory, according to the manufacturer, and will withstand fire and smoke for 45 minutes. When the new units are installed in corridors in schools and other institutions, an area of refuge is provided, protected from smoke and flames. The frames may contain an opening for a door or pair of doors. Overly Mfg. Co., Greensburg, Pa.

For more details circle #105 on mailing card

Stainless Steel Container for Liquefier-Blender



The Osterizer liquefier-blender is now available with a stainless steel container, making it especially useful in institutions. The new container is the result of six years of experimentation. It is threaded to fit on the high powered base of all blender models in the Oster line and is interchange-

able with the standard glass container. Open at both ends, the container can be completely cleaned and sterilized, and hot and cold liquids or solids may be poured into the container simultaneously without damage. The highly tempered steel is virtually dent and scratch resistant. John Oster Mfg. Co., 5055 N. Lydell Ave., Milwaukee 11, Wis.

For more details circle #106 on mailing card

Economy and Efficiency in Portable Photocopy Machine

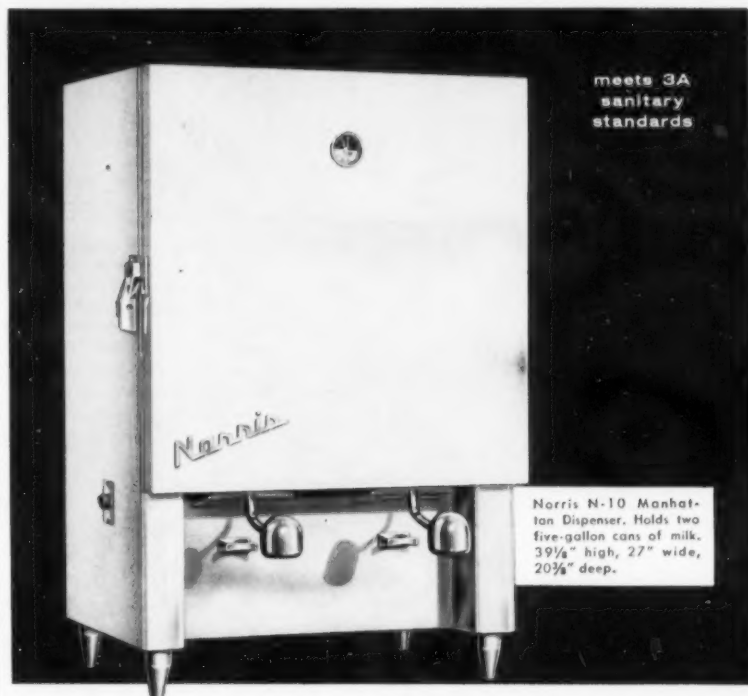
The new Apeco Director "Auto-Stat" is a compact photocopy machine which is lightweight and portable. It is economical in price, yet combines a unique "speed feed" feature with excellent performance.

It is a desk-top model which will reproduce any original document of office size in a matter of seconds. Features of the new model include single pushbutton control,



continuous automatic feed operation and functional styling which facilitates maintenance. American Photocopy Equipment Co., 2100 Dempster, Evanston, Ill.

For more details circle #107 on mailing card
(Continued on page 108)



meets 3A
sanitary
standards

Norris N-10 Manhattan Dispenser. Holds two five-gallon cans of milk. 39 1/2" high, 27" wide, 20 1/2" deep.

Faster service • Cleaner conditions with Norris Milk Dispensers

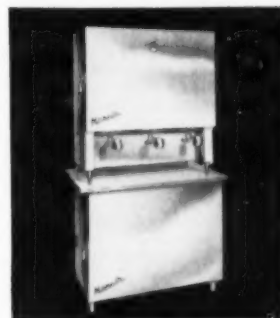
Norris Dispensers not only provide faster service in your lunchroom or cafeteria, but they eliminate messy cartons and bottles as well. And of course you know you are serving tastier milk—serving it the way it should be served, cold and aerated. There is a Norris Dispenser for every need . . . every type of milk serving. Ask your dairy.

After more than 10 years, over 95 percent of Norris Dispensers are still in use!



Norris
DISPENSERS INC.

MINNEAPOLIS 8, MINNESOTA



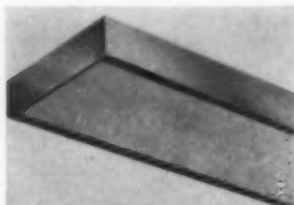
N-15 Manhattan Dispenser on N-15 Refrigerated Storage Stand. Each holds three five-gallon cans. 39 1/2" high, 37 1/2" wide, 17 1/2" deep. Stand is 34 1/4" high, 39 1/4" wide, 24" deep.

Lever Assembly on Duplicator Permits Use of Small Stencils

Rex-Rotary D280 duplicators now incorporate a new lever assembly permitting the use of either letter, legal or memo-sized stencils without masking. Shorter, longer or narrower stencils may be used on the heavy duty duplicators after the new parts are assembled. A switch of the lever accommodates to the size of the stencil, from legal size to post cards. Savings in time as well as supplies are possible with the new lever assembly. **Rex-Rotary Distributing Corp., 387 Fourth Ave., New York 16.**

For more details circle #109 on mailing card

Sunlux Lens Panel in Visionaire Series



An addition to the Visionaire Series of lighting fixtures is offered in the new Sunlux Lens Panels. Sunlux is a water-clear, color-stabilized polystyrene lens panel with optically sharp prismatic lattice pattern. The improved plastic material resists discoloration for the normal life of the panel, thus reducing maintenance and replacement. Total luminaire efficiency is increased because of the perfect clarity of the

material and the precise geometric forming of the prism structure. The panels have increased strength in both directions.

The Sunlux panels in the 6600 Series are completely framed and incorporate a continuous "hook-on" hinge for opening or removal without tools. Both the recessed and surface mounted Visionaires offer a touch-type latch, flush with the trim. **Sunbeam Lighting Co., 777 E. 14th Pl., Los Angeles 21, Calif.**

For more details circle #109 on mailing card

Portable Vacuum Cleaner for Clearing Grounds

Waste paper, leaves and other types of light trash are quickly cleared from



grounds and recreation areas, as well as parking lots, with the new Tisit portable outdoor vacuum cleaner. Powered by a 2 3/4 h.p. Briggs and Stratton gasoline motor, the Tisit has handle bar throttle control and is wheel-mounted for ease of handling. Material is blown directly into inexpensive bags for immediate disposal, or it may be

blown through an attached flexible tube for deposit into reusable bags, bins or refuse trucks. **Michigan Production Engineering, 1796 E. Nine-Mile Rd., Hazel Park, Mich.**

For more details circle #110 on mailing card

High Fidelity Unit Demonstrates Sound Components

The Audio Baton is a high fidelity unit particularly useful for demonstrating sound and music components. It is a practical demonstration instrument for physics and music courses which provides an infinite control of the entire audio spectrum, making it an important adjunct to teaching.

In the audio-visual program using a public address system, the Audio Baton can be used to eliminate the shrill whistle of



howl or feedback. In demonstrating sound in a physics class, the instructor can set the Audio Baton control to verify the fact of tuning fork vibrations. The Audio Baton is used in music courses to demonstrate the sounds of various instruments by amplifying or reducing tone control. **Blonder-Tongue, 9 Alling St., Newark 2, N.J.**

For more details circle #111 on mailing card

(Continued on page 110)

NO RECORDS PROBLEMS?

If yours is the rare campus where alumni records are perpetually up to date and under control . . . If every contribution check goes right to the office of the Treasurer or Bursar like a faithful homing pigeon . . . If each donor promptly receives the exactly right acknowledgement . . . If each administrative office has access to the information it needs, without duplication of equipment or labor . . .

If yours, in short, is a campus without records problems . . . congratulations.

But if your records threaten to cause more headaches than faculty politics and student disciplinary infractions combined, we call your attention to "Seven Keys to Sanity" by Arthur C. Frantzreb, vice-president of our New York company, in the February issue of *Alumni Council News*.

You will find in this article not mere solace, but information proved practical in helping colleges and universities to develop efficient centralized records systems.

If you don't have a copy available, any of our offices will gladly supply a reprint.

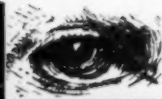
- NEW YORK
515 Madison Avenue
- SAN FRANCISCO
235 Montgomery Street
- MONTREAL
2160 Mountain Street
- TORONTO
Ten St. Mary Street
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5506 Connecticut Avenue, N.W.
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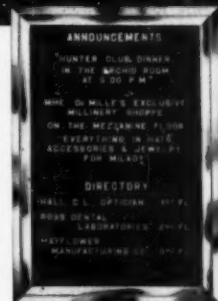


SOLID GROWTH THROUGH SOUND PLANNING AND ACTION

MAKE SURE IT'S READ...
MAKE SURE IT'S A



DAV-SON BULLETIN BOARD



CHANGEABLE LETTER STYLES
for indoors or outdoors, with or without glass doors and lighting, metal or hardwood frames.

TYPES & STYLES FOR EVERY NEED
Handsome, sturdy, highly visible and attention-compelling. DAV-SON BULLETIN BOARDS get the message across quickly and surely.

CORK BOARDS

Wide selection, self-sealing, in metal or wood frames. With or without glass doors and lights.



CHALK BOARDS

All sizes, in black or green, smooth Dur-O-Plate surfaces.



SEE YOUR DEALER OR WRITE DIRECT
FOR 1959 DAV-SON CATALOG AND PRICES.



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try
this one
for
size



You compare and, naturally, you choose Hampden folding chairs. For church, school, hospital... whatever your public seating requirements, Hampden makes a variety of all-steel, decorator-designed folding chairs to fit your needs and satisfy your desires. Most important, the surprisingly low price tag does not stand in your way!

For detailed information on the most complete line of adult and juvenile public seating, write today direct.

for
STYLE ✓
COMFORT ✓
ECONOMY ✓
SOLD

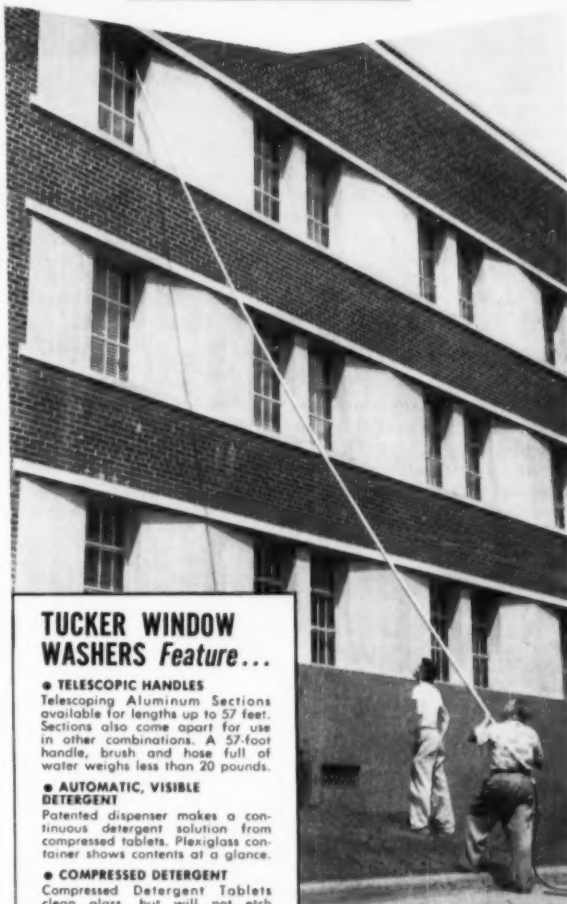


Distributors throughout the United States

NOW WASH WINDOWS

HIGH or LOW **FASTER AND SAFER**

with a Tucker Window Washer



TUCKER WINDOW WASHERS Feature...

- **TELESCOPIC HANDLES**
Telescoping Aluminum Sections available for lengths up to 57 feet. Sections also come apart for use in other combinations. A 57-foot handle, brush and hose full of water weighs less than 20 pounds.
- **AUTOMATIC, VISIBLE DETERGENT**
Patented dispenser makes a continuous detergent solution from compressed tablets. Plexiglass container shows contents at a glance.
- **COMPRESSED DETERGENT**
Compressed Detergent Tablets clean glass, but will not etch paint, stain stone or brickwork nor injure grass and shrubs.
- **SPECIAL WINDOW BRUSHES**
Wide flare brushes with Nylon edges and Polyurethane foam centers wash windows, edges and corners in one swipe.

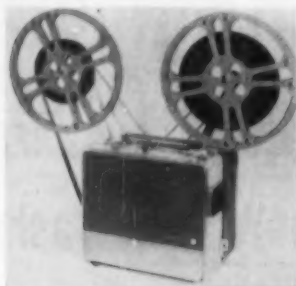
ONLY TUCKER WINDOW WASHERS can show you how to save time and money in cleaning your inaccessible windows. Up to now, it was necessary to erect costly scaffolding. With a Tucker

window wand, it is a simple time and money-saving task to clean those windows... and by standing on terra firma. Tucker has customized units reaching to the fifth story. Most popular is the 42 foot... or third story assembly... It costs less than a hundred dollars... and weighs less than 17 pounds.

For Full Particulars and Prices... Write to...

TUCKER MANUFACTURING CO.
CEDAR RAPIDS, IOWA

Teclite Film Projector Is Lightweight and Portable



Weighing less than 30 pounds, the new Teclite film projector for presentation of 16mm sound motion pictures operates on direct or alternating current. It is a compact, single-case unit, with an eight-inch speaker which is detachable if desired. An efficient cooling system and straightline optical system permit the use of 1200-watt lamps for long throws or for specially big film presentations. The compact construction facilitates handling and storage. Technical Service, Inc., 30865 Five Mile Rd., Livonia, Mich.

For more details circle #112 on mailing card

Variety of Sizes and Colors in Diversa-Signs

Made entirely of aluminum, Diversa-Signs have frame and horizontal guide strips formed of heavy gauge channel extrusions. A vandal-proof key-lock arrangement and flanged letter blanks make it easy

to change copy in seconds for announcements of meetings, games and the like, scores, slogans and other signs. Diversa-Signs are available in four, six and eight-foot lengths, with as many lines as desired. They are available in combinations of colors with aluminum letter blanks having baked enamel colors. Letters are 4½ inches high and scientifically positioned on the blank for maximum readability. The quickly changeable letters come in a compart-



mented storage box. Diversa Mfg. Co., 35700 Vine St., Willoughby, Ohio.

For more details circle #113 on mailing card

Book Case Shelving Available in Four Styles

Single and double-faced units with both open and closed backs are offered in the new line of Penco book case shelving. Designed for use in libraries and offices, as well as in classrooms where book shelves are required, the new shelving is offered in ten sizes. Unusual design and construction features include quick, easy positioning as the shelves are adjustable on one-inch centers; shelf design that eliminates the need for shelf brackets and lets the shelf rest firmly on slots at four points of the double-channelled upright panels, and simple shelf-end locks that prevent accidental shelf re-

moval. The shelving has specially designed floor plates and bases which evenly distribute load weight.

The new shelving is 36 inches wide per section. Each section can be used as an individual unit or joined to others. It is available in three standard and six decorator colors. Penco Div., Alan Wood Steel Co., 200 Brower Ave., Oaks, Pa.

For more details circle #114 on mailing card

Scotkin Paper Napkins Now Folded for Trays

A new eight-fold dinner napkin, Brand 878, is now available in Scott paper. The



extra fold provides the Scotkin napkin ready for use in cafeterias and lunchrooms. They are dispensed from a flip-open box for easy handling, with a cover which snaps shut to protect remaining napkins from dust. The Scotkins are 10½ inches square opened, but folded to a convenient size for tray use. Scott Paper Co., Chester, Pa.

For more details circle #115 on mailing card

(Continued on page 112)

Lamps

The UNIVERSITY LINE...

DESIGNED AND BUILT SPECIFICALLY
FOR COLLEGE RESIDENCE HALLS



Order Now for residence
halls opening this fall.
Avoid last minute rush.

Excel

MFG. CORP., MUNCIE, IND.

THIS MONTH'S

*Super
Value*

**HI-LO
EASY CHAIR**

With All These Features!

- (A) Adjustable Height Back Cushion
- (B) Form-Fitting Bent Wood Back Frame
- (C) Wall-Saver Design



No. 1082 Easy Chair's back cushion can be used in two positions — with top flush with the chair's back frame, or held 5" higher by means of a novel strap holder. It is ideal for convalescent patients — unmatched in comfort and durability for any use. Spring-filled seat cushion and latex-filled back cushion are removable and upholstered with elastic Naugahyde. Must be seen to be fully appreciated. On display at our showroom — or let us demonstrate in your institution. LOWEST CONTRACT PRICES.



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Contract Furniture

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ESTABLISHED 1873

SEND FOR BULLETIN 1082

Kill "STAPH" and Other Bacteria ON FLOORS, WALLS, ETC. WITH

DuBOIS GSC GERMICIDAL SYNTHETIC CLEANER

CONTAINS SANTOPHEN 1

G S C is the very latest germicidal, disinfectant cleaner development — not just another liquid sanitizer.

There is no hard-to-rinse soap in G S C to leave a film as a possible breeding place for bacteria.

Get G S C and help combat and control STAPH and other gram-positive and gram-negative bacteria safely and effectively. Use on all floors, walls, metal painted surfaces, furniture, fixtures or



Famous for Quality Products and Personalized Service for 39 Years

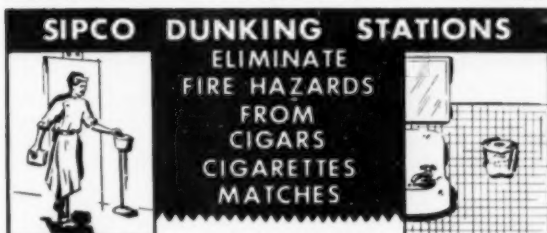
The DuBois Co., Inc., Cincinnati 3 • Los Angeles • Dallas • E. Rutherford, N. J.

CALL THE DuBOIS MAN TODAY, LISTED IN YELLOW PAGES UNDER "CLEANING COMPOUNDS"

anything you want to sanitize. G S C contains Santophen 1 — will not stain — has no adverse effect on conductive flooring.

▶ LOOK TO DuBOIS for complete dishwashing and general cleaning, too.

Use KOLOR-KOL, machine compound for removing and preventing stain on plastic tableware and china. Your choice of other dishwashing and custom made cleaning products and cost controlling dispensing equipment. DuBois products are preferred by many dietitians and kitchen managers!



MODEL 1JWS.



Thousands of BUSINESSES, INSTITUTIONS and INDUSTRIES use SIPC DUNKING STATIONS as a VITAL AID to FIRE-SAFETY and SANITARY HOUSEKEEPING PROGRAMS.

Heavy duty CAST ALUMINUM CANISTERS guaranteed three years against breakage. Over 20 different models. Standard and Jumbo sizes. Wall models, Floor models, permanent mounting models. Black crinkle or bright polished finishes. With or without message signs and decals. Special colors and special signs or decals on order. SIPC DUNKING STATIONS are designed to be partly filled with water. Drop the "Smoke" in the large top hole and IT'S OUT FOR GOOD. NO SMOULDERING—NO ODORS—NO UNSANITARY CONDITIONS. Lift off the canister or lift out an inner-liner—DUMP IT and the cleaning job is done. MODEL 4J. Designed for permanent mounting on walls, posts, columns, etc. in public areas. Eliminates piffing problem. JUMBO size canister furnished with light-weight, rugged glass-fiber inner-liner. Flip back the lid—Lift out the inner-liner and dump it. Inner-liner fits all JUMBO size SIPC canisters and is available separately. MODEL 1JWS. JUMBO size DELUXE floor model less message sign and decal. Ideally suited to modernistic or conservative surroundings. 38" high. Heavy weighted base. Also available with attractive, eye-catching message sign and/or decal. (MODEL 1JD)

MODEL 4J.



WRITE FOR ILLUSTRATED FOLDERS

STANDARD INDUSTRIAL PRODUCTS CO.
DEPT. CU • 3527 FARMINGTON RD. • PEORIA, ILLINOIS

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wants you to become more expert
...learn more about student room design
...here's how:



BY THE CREATORS OF FAMOUS
"ROOM 22" ... MORE FUNCTIONAL
... DURABLE ... ECONOMICAL ...

THIS MUCH FOR EVERY STUDENT



Layouts...Estimates...Engineering...Manufacture
Complete integrated service for America's Campuses
WALL-AWAY CORPORATION

3,000 CUTTING HOURS

*Based on a 25 week season

NOW IS THE TIME to be critical of your grass cutting operations. Scrutinize every cost factor: original price, repair, replacement, maintenance and man hours for cutting and trimming.

A recent nationwide survey shows the life span of a LOCKE to average 3,000 hrs.* or one third longer than comparable equipment.



Learn how a LOCKE cuts and trims your lawn in one operation, saves you time, man-power and money.

See your Locke service dealer, or write for Bulletin "ST."



POWER LAWN MOWERS

1321 CONNECTICUT AVE., BRIDGEPORT 1, CONN.
A product of Locke Steel Chain Co.

Monroe FOLDING PEDESTAL BANQUET TABLES

SOLD DIRECT
Over 50 years experience and service back Monroe Folding Tables and other products. Largest factory in the world selling folding tables direct to schools, churches, lodges, clubs, hotels, and other institutions.

Factory Prices and Discounts
Our catalogs are our only salesmen. Our manufacturing and distribution savings are passed on to the organizations and institutions, like the over 51,000 whom we have served.

All Steel Folding Chairs
Monroe-Approved chairs in attractive range of styles, sizes at direct prices. Excel in comfort, durability and ease of handling.

Transport Trucks For Tables and Chairs
Any room set up or cleared in a jiffy. One man can do it. For both moving and storing. Model TSM shown.

Portable Partitions
Panels in tubular steel frames, on swivel glides or casters. Idle space converted to useful areas. Also chalkboard finished, with cork tack boards as shown.

MONROE No. 3 Deluxe 30x96 in. 29 in. high

Easily Seats 10 (5 on each side)

Maximum seating capacity and comfort. Exclusive MONROE folding steel pedestals eliminate knee interference. Folds flat. 12 tables "stack" only 29 inches high. Ideal for multiple dining and recreational activities. This model offered in 8 sizes, in 3 Monroe Top Finishes—Tempered Masonite (as shown), Ornaeal Blon-D and Melamine Plastic.

Monroe Fold Lite Utility Tables
Conventional steel folding legs. 16 sizes from 32" x 32" up to 37" x 10' and 4' x 8', special sizes to order. Masonite and Ornaeal Blon-D tops.

Adjustable Height Folding Tables
Can be adjusted any height 20 to 30 inches. Folding pedestals or legs. No tools required. Will not slip or collapse.

Monroe Folding Risers and Platforms
Most modern staging choral groups, etc. Ruggedly built sections with steel folding legs. Many standard settings or specials to order.

COMPLETE CATALOG FREE

House, purchasing or kitchen committees of churches, schools, clubs, lodges, etc. Write at once for newest Monroe Line Institutional Catalog in colors. Complete prices, discounts and terms. Address:

THE MONROE COMPANY 77 Church St. COLFAX, IOWA

Literature and Services

- Specifications and general catalog information on the expanding line of General Floor Machines and E-Con-O-Vac Vacuum Cleaners for institutional use are available in a new **Floor Maintenance Catalog** offered by General Floorcraft, Inc., 421 Hudson St., New York 14. Data on each floor maintenance machine in the line are included.

For more details circle #116 on mailing card

- **Catalog No. 30** released by the Henry Weis Mfg. Co., Inc., Elkhart, Ind., carries full color illustrations of Weis Toilet Compartments. Color chips indicate the wide choice of colors available and detailed information is given on all Weis compartments in Vitre-Steel (porcelain enamel) and baked enamel finishes.

For more details circle #117 on mailing card

- **Haws Electric-Hydraulic Folding Partitions** with their positive floor seal are the subject of an informative catalog available from Robert Haws Co., 15722 Telegraph Rd., Detroit 39, Mich. Specifications with diagrammatic drawings of construction and operation are given, together with photographs of actual installations.

For more details circle #118 on mailing card

- How to obtain low cost painting best suited for lasting results for both interior and exterior applications is discussed in a 16-page brochure entitled **"Your Next Paint Job."** Prepared by The Tremco Mfg. Co., 8701 Kinsman Rd., Cleveland 4, Ohio, the comprehensive brochure provides a quick reference guide for producing a satisfactory finishing job at the lowest cost.

For more details circle #119 on mailing card

- The 1959 **Electronics Catalog** (No. 180), featuring a large selection of electronic parts and equipment for use in schools, classrooms, laboratories and shops is offered by Allied Radio Corp., 100 N. Western Ave., Chicago 80. It consists of 452 pages and lists over 32,000 items. Of special interest to school personnel is the section on training kits, recording and test equipment, diagrams, parts and tubes.

For more details circle #120 on mailing card

- **Geyser Aluminum Windows and Curtain Walls** are the subject of a new 20-page catalog available from E. K. Geyser Co., 915 McArdle Roadway, Pittsburgh 3, Pa. Information includes the basic design and construction, specification, scale details, approximate prices and recommendations for economical design. Glazing procedure, ventilators and panel styles are included, as are illustrations of the products in use.

For more details circle #121 on mailing card

- A **Sample Kit of Paper Plates** is offered by the Paper Plate Association, Inc., 141 E. 44th St., New York 17, to food service managers, business managers and others concerned with food service. It is designed to assist in the selection of the right paper plate for each specific food service need and, developed in cooperation with fourteen leading manufacturers, the kit contains 25 sample plates in a broad range of shapes, types, sizes, colors and finishes.

For more details circle #122 on mailing card
(Continued on page 114)



...because they went to their doctors in time

Many thousands of Americans are being cured of cancer every year. More and more people are going to their doctors *in time*. That is encouraging!

But the tragic fact, our doctors tell us, is that every third cancer death is a needless death...*twice* as many could be saved.

A great many cancers can be cured, but only if properly treated before they have begun to spread or "colonize" in other parts of the body.

YOUR BEST CANCER INSURANCE is (1) to see your doctor *every year* for a thorough checkup, no matter how *well* you may feel (2) to see your doctor *immediately* at the first sign of any one of the 7 danger signals that may mean cancer.

For a list of those life-saving warning signals and other facts of *life* about cancer, call the American Cancer Society office nearest you or simply write to "Cancer" in care of your local Post Office.

American Cancer Society



• The complete line of Geerpres Floor Cleaning Equipment is presented in the 20-page Catalog #958 released by Geerpres Wringer, Inc., P.O. Box 658, Muskegon, Mich. Full descriptive information with illustrations covers the Geerpres interlocking gear mop wringer, caster-mounted buckets, mopping outfits, mopping accessories and the new Des-Kart accessory to simplify desk moving.

For more details circle #123 on mailing card

• Kinnear Rolling Doors are the subject of Bulletin No. 101 published by The Kinnear Mfg. Co., 820 Fields Ave., Columbus 16, Ohio. The various types of rolling doors offered by the company, with descriptive information on their construction, parts, operation and installation, are discussed in the 28-page catalog, with drawings and photographs illustrating the points made. A page is devoted to the general features of the doors, which include quick, easy operation, space saving, maximum safety and durability, fire and general protection, and economy of installation with neat, attractive appearance.

For more details circle #124 on mailing card

• Catalog 400 is completely revised 1273-page purchasing guide for buyers of laboratory supplies and equipment issued by The Chemical Rubber Co., 2310 Superior Ave., Cleveland 14, Ohio. Product descriptions, finding aids and a wide selection of items are features of the book. It contains separate supplies and equipment sections with over 8000 listings in alphabetical order and many cross references.

For more details circle #125 on mailing card

• Bulletin ESL-2047 illustrates how steel equipment and "storage engineering" are teamed up to help school planners provide adequate storage facilities. Prepared by the Berger Division, Republic Steel Corp., 1038 Belden Ave. N.E., Canton 5, Ohio, the 4-page illustrated brochure stresses the advantages offered by the advice of experts on school storage equipment when planning expansion of a school system, whether new construction or remodeling. Ready-to-install steel units such as shelving, closets, cabinets, lockers, book cases, desks, home making and shop equipment are illustrated and described.

For more details circle #126 on mailing card

• A new catalog of Schieber Folding Tables and Benches is available from Schieber Co., 12955 Inkster Rd., Detroit 39, Mich. Specifications on the In-Wall, Compac-Fold, Flexo-Fold and Transi-Fold units, with illustrations of installations and complete information on structural details are included.

For more details circle #127 on mailing card

• A list of schools and universities which have installed Everlite Greenhouses is given in a folder entitled "Selecting A Greenhouse." Available from Aluminum Greenhouses, Inc., 14615 Lorain Ave., Cleveland 11, Ohio, the folder presents information on installation, maintenance, size, location, foundation, various types available and other data on these aluminum Everlite units which provide special teaching facilities for science classes at economical cost.

For more details circle #128 on mailing card

• "Visualization Made Easier" is the title of a 32-page booklet available from Chart-Pak, Inc., Leeds Mass. The booklet describes over 550 pressure-sensitive tapes of many sizes, colors and patterns designed to speed the making of graphs, charts, slides and other material, with directions for making layouts, organization charts and flow charts. Information is also given on grid sheets made of DuPont Mylar and the new Chart-Pak "Tape-Pens."

For more details circle #129 on mailing card

• A new Boiler Guide for those concerned with school heating is available from Cleaver-Brooks Co., 326 E. Keefe Ave., Milwaukee 12, Wis. Entitled "How to Select a Boiler," the booklet contains 30 illustrations and graphs and covers such topics as construction costs, first cost vs. operating costs, selecting the right fuel and similar subjects.

For more details circle #130 on mailing card

• "Lighting the Modern Stage" is the title of a 28-page manual for architects, engineers, administrators, drama directors and others concerned with this phase of school planning. Prepared by Ariel Davis Mfg. Co., 3687 S. State St., Salt Lake City 15, Utah, as a guide to planning and designing modern installations, the handbook is divided into two sections and carries many specially prepared illustrations. The first section covers "Planning the Auditorium and Stage" and the second is devoted to "Lighting the Stage." The book carries a price of 50 cents but copies will be sent free to school officials and architects.

For more details circle #131 on mailing card

DURABLE and SMART furniture



No. 8213
Wall-Saving Side Chair
(No. 8212 matching
arm chair)

Wide assortment of chairs and tables. See your dealer or write us for our distributor's name.

AMERICAN CHAIR COMPANY
Manufacturers
Sheboygan, Wisconsin

Permanent Displays: Chicago • New York • Miami • Boston • San Francisco

Leaves air mint fresh!



the multi-purpose
industrial disinfectant
with the fresh mint leaf aroma

MINTOL disinfectant has a coefficient of 9. Diluted half a cup to the pail of water, it meets the new Use Dilution Confirmatory Test.

SANITIZES THE SURFACE
KILLS BACTERIA DEODORIZES

For free sanitary survey
of your premises ask
your Dolge service man



INDEX TO "WHAT'S NEW"

Pages 95-114

Key

- 65 "Bank Mover" Power Unit
Fred Modest Products, Inc.
- 75 Fiberglass Seating
Brunswick-Balke-Collender Co.
- 77 Tilt-Right Can Tiller
The Paul O. Young Co.
- 79 Language Laboratory System
Radio Corp. of America
- 79 No. 878 Folding Chair
Durham Mfg. Corp.
- 80 Projection-L Desks
Gramer Fixture Chair Co., Inc.
- 81 Celerith
Johns-Manville
- 82 Sit-Up Furniture Wax
S. C. Johnson & Son, Inc.
- 83 Copytron Enlarger-Printer
Charles Bruning Co., Inc.
- 84 Teacore Vinyl Flooring
Armstrong Cork Co.
- 85 Electric Adding Machine
Remington Rand
- 86 Strong Bone Chair Band
Wenger Music Equipment Co.
- 87 Vibrationation System
Kurt Engineering Co.
- 88 Chef Style Formic Plates
Pittsberry Co.
- 89 Dominion Kettle MCM
Reipoint Co.
- 90 Functional Color Kit
Colorizer Associates
- 91 Action Organ Kit
Electronic Organ Art. Inc.
- 92 Classroom II TV Set
Motorola Inc.
- 93 MCM Library Equipment
Wholen's School Equipment

Key

- 94 Tempo Teachers Desk and Chairs
Origo Equipment, Inc.
- 95 Automatic Spray Insecticide
Huntington Laboratories, Inc.
- 96 RT-50 Strappovac
The M. D. Stetson Co.
- 97 Paint Remover
Parco-Cable Machine Co.
- 98 MDS Lighting Fixtures
Crouse-Hinds Co.
- 99 MLE Metal Folding Chair
Knapser Metal Products Co.
- 100 Caddy-Vayer
The Caddy Corp. of America
- 101 G-E Projection Lamp
General Electric Co.
- 102 Shower Stall Mat
Rubbermaid, Inc.
- 103 Satellite Globe
Rand McNally & Co.
- 104 Man Partitioner Panels
Mannay Sales Div.
- 105 Metal and Glass File Drawers
Overly Mfg. Co.
- 106 Stainless Steel Containers
John Oster Mfg. Co.
- 107 Director "Auto-Stat"
American Photocopy Equipment Co.
- 108 Lever Assembly
Rac-Rotary Distributing Corp.
- 109 Sunken Lens Panels
Sunbeam Lighting Co.
- 110 Trail Grounds Cleaner
Michigan Production Engineering
- 111 Audio Notes
Rinsler-Tongue Laboratories, Inc.
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Technical Service, Inc.

Key

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Diverso Mfg. Co.
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75	76	77	78	79	132	133	134	135	136
80	81	82	83	84	138	139	140	141	142
85	86	87	88	89	144	145	146	147	148
90	91	92	93	94	150	151	152	153	154
95	96	97	98	99	156	157	158	159	160
100	101	102	103	104	162	163	164	165	166
105	106	107	108	109	168	169	170	171	172
110	111	112	113	114	174	175	176	177	178
115	116	117	118	119	180	181	182	183	184
120	121	122	123	124	186	187	188	189	190
125	126	127	128	129	192	193	194	195	196
130	131				198	199	200	201	202
					204	205	206	207	208
					210	211	212		

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INDEX TO ADVERTISEMENTS ON FOLLOWING PAGE



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ADVERTISEMENTS

135	136	137
141	142	143
147	148	149
153	154	155
159	160	161
165	166	167
171	172	173
177	178	179
183	184	185
189	190	191
195	196	197
201	202	203
207	208	209

WHAT'S NEW

75	76	77	78	79
80	81	82	83	84
85	86	87	88	89
90	91	92	93	94
95	96	97	98	99
100	101	102	103	104
105	106	107	108	109
110	111	112	113	114
115	116	117	118	119
120	121	122	123	124
125	126	127	128	129
130	131			

ADVERTISEMENTS

132	133	134	135	136	137
138	139	140	141	142	143
144	145	146	147	148	149
150	151	152	153	154	155
156	157	158	159	160	161
162	163	164	165	166	167
168	169	170	171	172	173
174	175	176	177	178	179
180	181	182	183	184	185
186	187	188	189	190	191
192	193	194	195	196	197
198	199	200	201	202	203
204	205	206	207	208	209
210	211	212			

TITLE _____

STATE _____

NAME _____

INSTITUTION _____

ADDRESS _____ CITY _____ ZONE _____ STATE _____

+++ INDEX TO ADV

Key	Page	Key	Page
131 Adams & Westlake Company	15	148 DeLia Screen Company	80
132 All-School Equipment Inc.	80	149 Davenport & Son, Inc., A. C.	100
134 American Air Filter Co., Inc.	80	150 DeLoughry Mfg. Company	80
135 American Bitumastic & Asphalt Com- pany	70	151 Deiga Company, C. B.	114
136 American Chair Company	114	152 DuBois Company, Inc.	111
137 American City Bureau	80	153 Dushane Book Inc.	80
138 American Glomatic Company	6	154 Economics Laboratory, Inc.	90
139 Bay West Paper Company	80	155 Eichenmiller	110
140 Bencor Company, Charles	80	156 Sand Manufacturing Corporation	110
141 Bickelme & Company, G. E.	80	157 Fiberside Plastics Company	Cover 2
142 Berkeley Companies	100	158 Fleet of America Inc.	100
143 Brera Company	5	159 Flynn Mfg. Company, Michael	81, 83
144 Brining Co., Inc., Charles	131	160 Gerritt Tubular Products, Inc.	104
145 Burroughs Corporation	23	161 Glascock Brothers Mfg. Company	7
146 Clarke Floor Machine Company	81	162 Grinnell Company, Inc.	26
147 Corbin Wood Products Division	80	163 Hampden Specialty Products, Inc.	100

Key	Page
144 Hoyt Corporation	
145 Haywood-Wheeler Com	
146 Harvard Chemical Comp	
147 Hobart Mfg. Company	
148 Huntington Laboratories	
149 Insured Tuition Paymen	
150 Johnson & Son, Inc., S.	
151 Johnson Service Comp	
152 K.D. Manufacturing Com	
153 Lawton Associates Inc.	
154 Locke Steel Chain Com	
155 Munter Lock Company	
156 Murray-Young Comp	
157 Medical Products, Inc.	
158 Meagel Company	
159 Merrill Dispensers	
160 Minneapolis-Honeywell	

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ADVERTISEMENT

Page	Key	Page	Key	Page
180	181 Minneapolis-Honeywell Regulator Co. 70, 71	187	Siemens Company	14
17-22	182 Monroe Calculating Machine Co., Inc. 67	188	Siemens Company	77
175	186 Monroe Company	113	189 Sloan Valve Company	1
74, 76	184 National Biscuit Company	57	200 Southern Spring Bed Co.	94
85	185 Nesbitt, Inc., John J.	10, 11	201 Standard Industrial Products Company	111
94	186 Newcomb Audio Products Co.	98	202 Steelcase, Inc.	97
12, 13	187 Norris Dispensers, Inc.	100	203 Taylor Company, Halsey W.	94
Cover 4	188 No-Sag Spring Company	75	204 Techni Corporation	103
91	189 Owens Illinois Kimble Glass Company Subsidiary	24, 25	205 Toledo Metal Furniture Company	106
86	186 Parson Division	66	206 Toledo Scale Company	61
112	191 Philco Corporation	74	207 Tucker Manufacturing Company	109
10	192 Rastetter & Sons Company, Louis	2	208 Tution Plan Incorporated	94
63	193 Emerson Mower Corporation	100	209 Up-Right Benfolds	67
66	194 Reyni Metal Mfg. Company	Cover 3	210 Wall-Away Corporation	111
105	195 Shaw-Peckins Manufacturing Company	105	211 West Chemical Products Inc.	73
104	196 Shure Brothers Inc.	109	212 Wilkinson Chutes, Inc.	106

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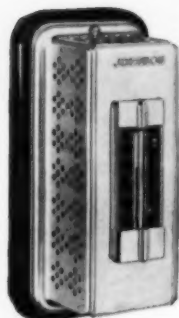
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